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Botanical Gleanings in Michigan.

II.

OLIVER ATKINS FARWELL.

Our collecting trips during 1924 were somewhat handicapped by frequent rains, and getting soaked was a frequent occurrence, though not in a way to offend the 18th Amendment. I have frequently read in scientific papers that it is an acknowledged fact that there is a tide on the Great Lakes. I had never observed it until our visit to Monroe Piers, August 27th. We arrived at about 9 o'clock A. M. The beach at that time of the morning was bare of water for about two hundred yards out and was anything but prepossessing as a bathing beach; we wondered where the bathing beach was. When we came back at about 1 o'clock P. M., there were about a thousand children in bathing where four hours earlier the beach had been dry sand!!! There probably was all of eight inches of water on the beach which would necessitate a tide of about a foot in depth. The water had not been blown off shore in the morning because at that time there was a perfect calm; it was not blown in at 1 o'clock because what wind there was at that time was off shore. While the above remarks are not strictly of a botanical nature, the incident that calls them forth is so full of interest that the opportunity to put it on record cannot be resisted. A similar tide was observed in St. Clair River at Walpole Island, September 3rd following. We arrived at Walpole Island before the Customs Office had been opened for the day and not knowing it was necessary to get permits to botanize on Squirrel Island, which is an Indian reservation, we went along without securing them and thus placed ourselves subject to arrest as we were told by a good looking and good natured young Indian who was engaged in hauling in new made hay. We were not interfered with, however, and made some interesting finds, at least to us. On the shores of Walpole Island we found the following:

Polygonum Lapathifolium var. Salicifolium, No. 7094d and P. littorale, No. 7091a; Stellaria graminea, No. 7125, a luxuriant form with an inflorescence over 3 dm. in length; Aster paniculatus var. cineras, 2ns, No. 7128, also on Squirrel Island, No. 7112; Artemisia Pontica, No. 7129, in flower, the first time we have found it in this condition, though it is well distributed and encountered every year; Senecio vulgaris, No. 7089. On Squirrel Island the more interesting plants are: Unisema cordata f. angustifolia, No. 7118: Triorchis gracilis, No. 7109, with either 1, 2, or 3 roots; Lithospermum Gmelini, No. 7121; Aureolaria Skinneriana, var. asperula, No. 7115, and its forma pallida, Nos. 7116 and 7098; the plant previously reported as A teniflora var. Gattingeri, No. 5675, is A. Skinneriana var. asperula; Lacinaria scariosa vars. aspera, No. 7113, and sphaeroidea, No. 7114, are plentiful and each variety has the involucral scales passing by degrees from pure white to rose; L. spicata, No. 7113a, is plentiful but ints forma albiflora, No. 7102, is scarce; a variation of L. spicata with a shortened and thickened spike not over one dm. in length and with each enlarged head subtended by a foliaceous bract, two to four times its length may be known as Lacinaria spicata (Linn) OK. var. foliacea, n. var. 7103.

Botrychium dissectum, Spreng. and var. elongatum (Gilb. & Harb.) Farwell. Much has been written about these two forms of the Grape Fern relative to their association in the field. On May 7, 1924, while botanizing just over the State boundary line in Ohio, a number of fronds of the preceding year were discovered in good condition, upright and with no sign of disintegration, proving them to have been evergreen, or semi-evergreen. Both forms were found scattered here and there in the copse. But two plants, one of each form,

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were intertwined and gave the appearance of springing from the same root. Careful digging showed them to be quite distinct; the roots of *B. dissectum* were directly over those of the var. *elongatum* which were 22 mm. deeper down in the soil than those of the former. While not appertaining strictly to the Flora of Michigan, yet on account of the nearness of the habitat to Michigan, this paper seems to be an appropriate place to make a record of a closeness of association that seems worthy of note.

Another interesting find here, which is near Alexis, O., is an albino form of Cardamine Douglassii (Torr.) Britton which may be known as C. Douglassii f. albidula, n. f. Flowers white or some with faint tinge of color. Although this species is abundant here and in Michigan, I have never before seen an albino form. It is not rare here. This species in this general region flowers a month earlier than the related C. bulbosa. No. 6880a, May 7th.

The dry hills near Orion were sparsely covered with dwarfed vegetation; as interesting specimens of this nature, we collected plants of *Lepidium Virginicum* and of *Veronica arvensis* that were less than a cm. in height yet in full flower and with the lower fruits fully matured.

At Andrew's Lake, Oct. 22, we found that the water in the leaves of Pitcher Plants was frozen; the ice was of varying thicknesses, the heaviest being about one-half inch thick.

Where the year is not given, it is to be understood that Farwell and Gladewitz are the collectors for the year, 1924.

Botrychium dissectum, Spr. var. obliquum (Muhl.) Clute. This variety is rather scarce in southeastern Michigan, rarer even than the typical form of the species; the most frequent form being var. enlogatum. Algonac, No. 7260, October 15th.

Hippochaete Nelsoni (A. A. Eaton) Farwell. Sterile stems of this species, smoothish to the touch, were found near Oxford on upland pastures. No. 7209, Sept. 24th.

Potamogeton foliosus, Raf., var. Niagarensis (Tuckm.) Morong. This is the coarsest form of the species with broad leaves and flat stems as broad, or nearly so, as the leaves (1.5 mm.) found in swiftly running water. Clinton R. west of Rochester, No. 6974, July 16th.

Digitaria linearis (Linn.) Pers. Said to be common in Michigan, but I do not find it so. Waste grounds near Redford,, No. 7245, Oct, 8th.

Panicum flexile (Gattinger) Scribn. This species of Panic Grass is not at all common in southern Michigan and where it is found it may be very scarce or very abundant as at the Powell Lake region; No. 7215, Sept. 24th. On Walpole Island in St. Clair River, (Canada) where it is very scarce. No. 7122, Sept. 3rd.

Panicum clandestinum, Linn. Roadsides near Algonac. At this time of the year, all the fruits had fallen from the panicles. No. 7257, Oct. 15th.

Echinochloa Crus-galli (Linn.) Beauv. var. hispida (Muhl.) n. comb. Panicum Crus-galli var. hispidum (Muhl.) Ell. Bot. S. C. & Ga. I (1816) 114. Spikelets with long, purplish awns and the lower leaves with hispid sheaths. Shores of Lake Erie at Monroe Piers; in yellow sand, No. 7075, Aug. 27th. I have collected this previously at Detroit where it was plentiful along the shores of Detroit River; in mucky grounds, No. 1679, Sept. 13, 1900.

Echinochloa Crus-galli var. hispida subvar. laevigata (Wiegand) n. comb. E. Walteri forma laevigata Wiegand, Rhodora XXIII (1921) 62. This differs from the variety in having the sheaths glabrous. Shores of Detroit River on Belle Isle. In marshy grounds, No. 1881-½, Sept. 23, 1904. This variety differs from other variations of the species in having the upper glume terminated by a short purplish awn; but the upper glume in forma longiseta (Belle Isle, No. 1881, Sept. 15, 1904) is very long acuminate or very shortly awned, a transition connecting this variety with the species.

Chaetochloa glauca (Linn) Scribn. This species frequently has a very slender spike, 3 to 6 cm. long and 7 mm. wide exclusive of the bristles which are short, being less than

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or st speci twice the length of the spikelets many of which are of a purplish color; the bristles also are purplish in the upper half in the living state but are liable to lose this color in drying. It is this form (No. 6467) that I reported in an earlier paper as *C. imberbis...* It has also been collected at LaSalle, No. 7167, Sept. 17th; Redford, No. 7246, Oct. 8th; and at Bloomfield, No 7278, Oct. 19th.

Chaetochloa viridis (L.) Scribn. var. minor (Koch) Farwell. This variety has purplish bristles and some of the flowers may have the same color. Geddes, No. 7058, Aug. 20, 1924.

** Chaetochloa Italica (L.) Scribn. var. Germanica (Roth) Farwell f. Metzgeri (Koern.) Farwell. Roadsides at Geddes, No. 7059, Aug. 20, 1924.

Zizania aquatica, Linn. Indian Rice or Water Oats. In a recent paper on this genus in Rhodora, Mr. Fasset says in giving its distribution: "Inland in northern New York, and rarely in Michigan." and quotes New Buffalo as its Michigan locality; this town is in the southwest corner of the State on Lake Michigan. It can be found by acres in the marsh lands of the eastern coast of Michigan from St. Clair River to Lake Erie. It has been found in Washtenaw Co., and I doubt not that it occurs throughout the southern tiers of counties. Monroe Piers, No. 7077, Aug. 27th. I have colected it previously as follows: Shores of Belle Isle in the Detriot River, No. 1297, Aug. 12, 1892; Grosse Ile in Detroit River, No. 1297a, Aug. 14, 1909; Shores of the Huron River at Geddes, No. 1297b, Aug. 21, 1909.

Zizania aquatica var. agustifolia, Hitchcock. A narrow leaved variety, low as a rule, but it may attain a height of 2 meters. This variety is rare in southeastern Michigan. Squirrel Island in St. Clair R., (Canada), No. 7120, Sept. 3rd. I have collected it in Michigan as follows: Shores of the Huron River at Geddes, No. 2115, Aug. 21, 1909; Marl Lake, No. 4372, Aug. 13, 1916.

Oryzopsis pungens (Torr.) Hitchc. Found on dry sandy or sterile grounds near Orion; this is the typical form of the species wherein the florets are awnless. No. 6903, June 4th.

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Triplasis purpurea (Walt.) Chapm. This plant looks very much like a rather stiff Sporobolus vaginaefolius. It dries out more or less purplish but is green in the living state except the terminal panicle which is purple, and partly included in its sheath; the lateral panicles are all included. A book name is Sand Grass. Shores at Monroe Piers, No. 7076, Aug. 27th.

Festuca octoflora. Walt... This annual, slender species of Fescue-grass is very rare in southeastern Michigan. In my wanderings through nine counties over many years, I have found it but once or swice heretofore. A small patch of it was found in sand near Erie. No. 7000, July 30th.

Eragrostis pectinacea (Mx.) Steudl. On a sandy field near Wayne, No. 7156, Sept. 10, 1924.

Secale Cereale, Linh., var. monstrossa, Koern. This variety of Rye has a compound spike, that is, with 3 or 4 branches near the base each 2-4 cm. in length. Erie, No. 6987, July 30th. Both Bearded and Beardless Wheat and Oats were growing here adventitiously and in abundance over an extensive piece of wild land.

Eleocharis rostellata, Torr. Borders of Powell Lake near Oxford. The shores of this lake are of marl; parts of the lake are submerged and in places the overlying surface is very thin and shaky. No. 7202, Sept. 24th.

Elymus Canadensis, Linn, var. robustus (Scribn. & Sm.) Farwell. I have seen this variety for the first time in Michigan, this year (1924). In the typical form the spikes are large, dense, not interrupted, and mostly more or less included and the lemmas are sparsely strigose; but those characters are variable and pass into those of the common form here, the var. Philadelphicus, but can always be differentiated by the large spikes. Along the railway right of way in dry grounds near Denton. No. 7131, Sept. 10, 1924. In similar situations at Geddes, No. 7057, and at Ann Arbor, No. 7042, Aug. 20, 1924. The collections at Geddes and at Ann Arbor are intermediate but are placed here on account of their robust spikes. The lemmas usually are 3-awned,

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quent Joseph Po the two lateral awns being short and closely appressed to the terminal awn and so are rather inconspicuous.

Cyperus erythrorhizos, Muhl. Shores of Cass Lake, rare; No. 7220, Oct. 1st.

Eriophorum vaginatum, Linn, var. humile, F. Nylander. In a sphagnum bog near Orion. This quite extensive bog gave rise to not more than half a dozen clumps of this Cotton Grass; but last autumn it was literally filled with the E. Virginicum var. album. No. 6896, June 4th.

Eriophorum Virginicum, Linn. In the sphagnum overgrowth of a submerged lake—Andrews Lake. No. 4400, Aug. 22, 1916; Lakeville, No. 5319, July 20, 1919. The var. album, A., Gr. we found at Andrews Lake this year. No. 7287, Oct. 22nd.

Carex sparganioides, Muhl. var. lutea, Farwell. In open, dry woodlands at LaSalle; culms stiff, over a meter high; perigynia yellow. No. 7189, Sept. 17th.

Carex alopecoidea, Tuckerm. A new station for this Carex was discovered, this time in Oakland Co., west of Rochester in low grounds along the railroad; No. 6958, July 9th. We had collected this species previously in Wayne Co. at Gibraltar, No. 6156, May 31, 1922, and at Trenton, No. 5771, May 26, 1921; in Monroe Co. at South Rockwood, No. 5872. June 14, 1921.

Carex alopecoidea, Tuckerm., var. sparsispicata, Dew. This var. with fewer flowered, more remote spikes is scarce. We collected it in Monroe Co. at Newport, No. 6241, July 5, 1922.

Peltandra Virginica (L.) Knuth forma hastifolia, Blake. This is the commoner form of the species in Michigan. In shallow water, Geddes, No. 7051, Aug. 20, 1924.

Junkus tenuis, Willd. var. uniflorus, Farwell. A rare variation of the species with but one flower. Mt. Clemens, No. 7022, Aug. 14, 1924. Redford, No. 7242, Oct. 8th.

Juncus Dudleyi, Wieg. In sandy soil at Algonac. Frequent. No. 7270, Oct. 15th.

Juncus brachycephalus (Engelm.) Buchn. Marl shores of Powell Lake, scarce; No. 7203, Sept. 24th.

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rbor, d at count vned, Juncus Torreyi, Coville, var. globularis, Farwell. In dry, sandy grounds near Wayne. No. 7140, Sept. 10th, 1924.

Juncus alpinus, Vill. var. fuscescens, Fernald. Shores of Cass Lake, scarce; No. 7218, Oct. 1st.

Juncus marginatus, Rostk. Rare in southeastern Michigan, this being the first time detected. In sand and only a few specimens noticed—less than a dozen. Erie, No. 6990, July 30th. Associated with J. acuminatus, Mx., No. 6991 and J. tenuis, Willd., No. 6992.

Lilium superbum, Linn. Differs from L. Michiganense in its somewhat broader leaves, which are perfectly smooth to the touch, at least in the living state and without any sign of scabrousity even under a strong lens. After taken from the press, a re-examination showed under a lens a minutely rough margin and some scabrousity on some of the nerves of the lower leaves; the upper ones, however, were as soomth as in the living state; to the touch the margins of the lower leaves felt slightly rough but the veins did not. No difference could be detected in the flowers, either in the color, which ranged from orange-yellow to deep red, or in the degree of recurvation of the segments, or in their spots. Erie, No. 6989, July 30th; Parkedale, No. 7015, Aug. 7th.

Trillium erectum, L. var. Cahnae, n. var. This is a variation intermediate in coloration of the flower between the species and the var. album. The basal ¼ section of the petals on the upper surface is brownish-purple as in the species, the upper parts being of a very pale purplish white to dull white, the lower surface being mottled with pale purplish brown and green. The stamens are 10 or 12 mm. long, the anthers twice as long as the filaments, which with the ocnnectives, are full purple as is the ovary. Collected in the vicinity of Clawson, Mich., by Mrs. Cahn of Highland Park, Mich., May 17, 1924. Rather plentiful. Mrs. Cahn also found good specimens of the variety album (Mx.) Ph. and needless to say of the typical form of the species, also.

Triorchis cernua (L.) Nieuwl. var. ochroleuca (Rydb.) n. comb. Flowers greenish or faintly yellowish, some white,

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Aug St. it S with longer floral bracts than usual in the species; it was found in very dry fields near Wayne, No. 7152 and near Sheldon, No. 7137, Sept. 10, 1924. LaSalle, No. 7190, Sept. 17th; Algonac, No. 7274, Oct. 15th.

Triorchis Romanzofiana (Cham.) Nieuwl. On the shores of Davis Lake. Rare. No. 7211, Sept. 24th.

Salix alba X fragilis, Wimmer. Flowering specimense of the tree reported last year as the var. calva indicate it to be this hybrid. A re-examination of the old mature leaves, this time with a lens, showed the presence of some very fine appressed silky pubescence. The twigs are very brittle and break at the base at the slightest pressure, suggesting S. fragilis; but the leaves and young branchlets are pubescent suggesting S. alba. The mature, more or less pubescent leaves are the narrow leaves of S. alba but with the few coarse serratures of S. fragilis. It may be the hybrid S. alba X fragilis as suggested last year, but it certainly is not the var. calva as reported.

Salix serissima (Bailey) Fernald. The Autumn Willow was found at the Powell Lake region in excellent fruiting condition. Rare; No. 7216, Sept. 24th; Waterford, No. 7283, Oct. 22nd.

Humulus Japonicus, Sieb. & Zucc. In roadside ditches at Wayne. No. 7159, Sept. 10, 1924.

Castanea dentata (Marsh.) Borkh. Known to occur in southeast Michigan only. North of Monroe, Gladewitz & Farwell, No. 5829, July 6, 1921; Ecorse, No. 6917, June 11, 1924. The tree at Ecorse was not yet in flower.

Polygonum Fowleri, Robinson. Prostrate or rarely ascending. Differs from P. aviculare in having the upper part of the achene exserted. Previously reported as P. Rayi. Detroit, No. 7006, Aug. 7th; Mt. Clemens, No. 7018, Aug. 14, 1924.

Cycloloma Atriplicifolium (Spreng.) Coult. This species is slowly but surely spreading widely. Ypsilanti, No. 7060. Aug. 20, 1924. It is well established on Walpole Island in St. Clair River (Canada), No. 7095a, where we collected it Sept. 3rd.

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also. ydb.) vh.te, Amaranthus hybridus, Linn. This species was found in sand near Redford. Its peculiarity in this location was its short, thick, rounded spikes, 4 to 6 cm. long by 1.5 to 2 cm. thick. The spikes were not flexious, yet they were not as stiff as those of A. retroflexus. No. 7247, Oct. 8th.

Anychia Canadensis (L.) B. S. P. On sandy grounds in dry woodlands. Erie, No. 6999, July 30th; No. 7180, LaSalle, Sept. 17th.

Silene dichotoma, Ehrh. This Catchfly is rapidly spreading over Oakland Co. Orion, No. 6980, July 23, 1924.

Saponaria officinalis, L. var. Caucasica, Bailey. The double flowered, Rosy Bouncing Bet was frequent along fence rows near Wayne. No. 7134, Sept. 10, 1924. The typical form of the species is abundant everywhere. The pale double flowered form, var. florepleno is also found occasionally.

Nymphozanthus variegatus (Engelm.) Fernald. In the Clinton River at Cass Lake. Frequent. No. 7223, Oct. 1st.

Anemone Virginiana, Linn. var. leucosepala, Fernald. This variety looks much like A. riparia Fernald but it differs in having obovate petaloid sepals instead of oval ones and anthers 1.2 to 1.5 mm. long while those of A. riparia are 1 mm. or less. With the typical form of the species. Banks and fields west of Rochester, No. 6960, July 16th.

Anemone riparia, Fernald. Rather scarce; occurs here and there on railroad banks and wooded hillsides in the Clinton River basin east of Rochester over a range of 2 or 3 miles. No. 7008, Aug. 7th.

Liriodendron Tulipifera, Linn. Found in St. Clair Co., north and west of Algonac; rare. No. 7276, Oct. 15th.

Radicula palustris (L.) Moench. Yellow Cress. Common in wet places. Keweenaw Co., No. 143, July 20, 1884; Ypsilanti, No. 143aa, June 21, 1892; Belle Isle, No. 143b, July 16, 1892; Mt. Clemens, No. 7020, Aug. 14, 1924. I have observed it in every county I have been through. R. palustris var. hispida (Desv.) Robinson. Often larger and coarser but much less frequent than the species though found in the same general habitat. Keweenaw Co., No. 144, July 20,

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1884; Belle Isle, No. 144a, July 16, 1892; Frazer, No. 7033, Aug. 14, 1924.

Hesperis matronalis, L. f. albiflora (DC.) n. comb. Hesperis matronalis L., var. albiflora Dc. Prodr. I [1824] 189. Flowers white. Since this is only a color variation of the type, it should be ranked as a form rather than as a variety. Amy, No. 6976, July 16. Reported previously from Ypsilanti as var. albiflora.

Hirschfeldia, Moench. Meth. (1794) 264. Ecrucastrum Presl. Fl. Sic. I (1826) 92.

H. Gallicum (Willd.) n. comb. Sisymbrium Gallicum Willd., Enum. Hort. Berol. (1809) 678. Erucastrum Pollichii, Schimp. & Spenn. Fl. Freiburg. III (1829) 946. H. Pollichii Fritsch, Mitteil. Naturw. V. Wien, V (1907) 92.

Engler and Prantl in *Die Natur. Pflanzen*. III 2, 176, 177, maintain this genus of Cruciferae as distinct from *Brassica* but adopt the later name *Erucastrum* instead of the older name of Moench.

In so far as my knowledge goes, the proper combination under *Hirschfeldia* has not been made previously. I have collected it at the following places this year (1924); Mt. Clemens, No. 7031, Aug. 14th; Geddes, No. 7055, Aug. 20th; Ypsilanti, No. 7064, Aug. 20th.

Cakile edentula (Bigel.) Hook. var. lacustris, Fernald. The Sea Rocket is frequent on the shores of Lake Erie in Monroe Co. The processes and corresponding cavities in the articulating joints as pointed out by Prof. Fernald are quite characteristic. No. 2185, Aug. 20, 1910 and several times since. Squirrel Island in St. Clair River (Canada), No. 5684, Sept. 16, 1920; Longport, N. J., No. 5536a, July 3, 1920 and 5900a, June 27, 1921. Also at Longport, N. J., the typical form of the species with smoothish surfaces to the articulating joints was found; No. 5537, July 1, 1920 and No. 5901, June 27, 1921 and on Staten Island, No. 4029, Sept. 8, 1915. The leaves are much the same in both varieties: fleshy, the upper dentate, the teeth increasing in size on the lower leaves, the lowermost being pinnatifid.

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Sedum accre, Linn. It is doubtful if there is a cemetery in the state in which this species has not been planted and from which it has not escaped to contiguous lands. It was found in a pasture near Rochester fully a mile from the cemetery, far from any residence, and in land that had never been cultivated. Being as far as it is from residences or both living and dead, it seems to be somewhat out or place but apparently it is permanently established. No. 6971, July 16th. On the shores of Walpole Island in St. Clair River (Canada) it has established itself and under the influence of abundant water, it has become twice as large as the normal size for it in its usual dry situations. Specimens transplanted to dry ground have sent out a new growth of normal size. No. 7082, Sept. 3rd.

Sedum Telephium, Linn. var. Fabaria (Koch) Steudel. Quite common in Michigan but seldom seen in flower. Tuberous rooted. Specimens collected and planted, after being 2 weeks in press with 200 pounds pressure, are thriving. Near Denton, No. 7132, Sept. 10, 1924; also Keweenaw Co., No. 190, Aug. 22, 1884, and Port Huron, No. 4967, June 23, 1918.

Ribes Huronense, Rydb. Much like R. Cynosbati L. but the calyx is more slender and the style is divided. Ecorse, No. 6912, June 11, 1924.

Rosa Woodsii, Lindl. Along the railroad banks near Erie. One of the rarer roses in Michigan. No. 6988, July 30th.

Crataegus Alnorum, C. S. Sarg. Fields and roadsides near Sylvan Lake, No. 7282, Oct. 22nd.

Crataegus albicans, Ashe (C. Tatnalliana Sarg.) It is some years since I have seen or collected this species and heretofore it has always been in Wayne Co. It has now been collected from Oakland Co. Near Yates, No. 6941, July 2nd.

C. Acerifolia, Moench. C. mollis Scheele. Rare in Michigan. Borders of streams or near water. LaSalle, No. 7166, Sept. 17th.

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Michi-7166, Prunus pumila, Linn. A low spreading shrub on sandy grounds. Orion, No. 6904, June 4th and fruit July 23rd. Leaves usually oblanceolate and acute.

Prunus cuneata, Raf. An upright shrub in similar situations. Orion, No. 6905, June 4th and fruit July 23rd. Leaves usually spatulate-oblong and obtuse.

Lupinus perennis, L., var. occidentalis, Wats. Differs from the type in having more villous stems and petioles. With the type but scarce. Orion, No. 6898, June 4th.

Lupinus perennis, L., f. albiracemus, A. H. Moore. This is distinguished by its white flowered racemes. Scarce. Orion, No. 6897, June 4th.

Meibomia Illinoenses (A. Gr.) O. K. Frequent near Ann Arbor and Geddes. The pubescence on all parts of this species is of hooked hairs and any part of it will adhere tenaciously to whatever it comes in contact with. Banks along the railroad right of way; No. 7047, Aug. 20, 1924. At LaSalle in Monroe Co., No. 7187, Sept. 17th.

Lespedeza Nuttallii, Darl. Roadsides near Cass Lake; scarce. No. 7233, Oct. 1st.

Vicia Cracca, Linn. The plants reported last year on a poor autumnal state as V. sparsifolia Nutt. prove to be of this species. Also found it at Pontiac; No. 6968, July 9th.

Geranium Robertianum, Linn. A drawfed state found on the high and dry hills or banks on the north side of the Clinton R. near Yates. No. 6942, July 2nd.

Polygala Senega, Linn. var. latifolia, T. & G. This rare variety was discovered in a new locality; it was observed on the right of way of the Grand Trunk Western, west of Rochester, occuring occasionally over a stretch of 5 or 6 miles. Amy, No. 6963, July 9th.

Polygala verticillata, Linn. Slender and inconspicuous. Usually in dry fields. Near Erie, No. 7005, July 30th. I have previously collected it as follows:—Detroit, No. 1436, Sept. 1, 1893; Rochester, No. 1436a, July 4, 1896 and No. 3856, Sept. 7, 1914; Parkedale, No. 3817, Aug. 9, 1914; and at Birmingham, No. 1436b, Sept. 6, 1903.

Polygala verticillata, var. ambigua (Nutt.) Wood. Reported as P. ambigua in the preceding paper from Avon township, Oakland Co.; I collected it at Rochester, a different part of the same township some years earlier. No. 3858, Sept. 7, 1914. This is better treated as a variety of P. verticillata than as a distinct species. Annual, though treated in Gray's New Manual as a perenial or biennial. Near Oxford, No. 7200, Sept. 24th.

Ricinus communis, Linn. The Castor Oil Plant is common in cultivation and frequently escapes to waste places. I have collected it as follows as an escape to waste grounds. Detroit, No. 1476, Aug. 4, 1894; near Mt. Clemens, No. 7028, Aug. 14, 1924.

Euphorbia dentata, Mx. Rare in this section of the country. Sandy shores of Lake Erie at Monroe Piers, No. 7068, Aug. 27th.

Sida hermaphrodita (L.) Rusby. Along the railway right of way near Wayne where it is frequent. No. 7145, Sept. 10, 1924.

Ludwigia alternifolia, Linn. This species with tuberous roots is abundant in low grounds on the border of a swamp west of Erie. No. 7001, July 30th.

Gaura coccinea, Pursh. This species was reported from White Pigeon by Dr. Beal. We found it east of Rochester. No. 7017, Aug. 7th.

Lythrum Salicaria, Linn. A meter or less in height, branched, glabrous; leaves alternate, opposite and whorled on the stem, opposite on the branches, ciliate, otherwise glabrous; calyx sparsely hispid, green to dark purplish; petals dark purple. Occasional in roadside ditches. Denton, No. 7139, Sept. 10, 1924.

Lythrum Salicaria var. tomentosum (Mill.) DC. The whole plant tomentose and the flowers pale purple. Similar situations. Occasional. Detroit, No. 4404, Aug. 27, 1916. Reported previously as L. Salicaria.

Uraspermum aristatum (Thumb.) OK., Rev. Gen. Pl. (1891) 270. Chaerophyllum aristatum Thunb., Fl. Jap.

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(1784) 119; Myrrhis Claytoni Mx., Fl. Bor. Am. I (1803) 170: Uraspermum Claytoni (Mx.) Nutt., Gen. I (1818) 193; Osmorhiza longistylis (Torr.) DC. Prodr. IV (1830) 232. It is customary to refer the species of Michaux to O. brevistylis DC. and the species of Nuttall to O. longistylis DC.; but how this can be done consistently is beyond my understanding in view of the fact that Nuttall was merely renaming Michaux's genus and species. Nuttall's description shows clearly that he had the long-styled species and Michaux's phrase, "Folia absque canitie pubentia" can apply to no other, certainly not to O. brevistylis. The index Keweensis refers Ch. aristatum Thunb. to O. Claytoni and that to O. brevistylis. But Thunburg's description is of a plant with a smooth, grabrous, striate stem and fruit with aristate, divaricate styles, clearly the O. longistylis. It is evident, therefore, that all three authors, Thunburg, Michaux and Nuttall, named and described the same long-styled species and that their plant names are synonymous. This species is common in southwestern Michigan but not as abundant as the next. The var. villecaule (Fernald) Farwell was collected in Ecorse township west of Oakwood, Wayne Co., which makes another known station for this variety in Michigan. No. 6918, June 11, 1924.

Uraspermum dulce (Muhl.) n. comb. Scandix dulcis Muhl. Cat. (1813) 31. Uraspermum hirsutum Bigel. Fl. Bost. Ed. 2, (1824) 112. Osmoshiza (sic) dulcis Raf. Med. Fl. II (1830) 249. Osmorhiza brevistylis DC. Prodr. IV. (1830) 232. The specific name dulcis is the oldest name for this species and should be reinstated. Common and abundant in southeastern Michigan.

Uraspermum dulce var. laevicaule, n. var. Stems below the branches glabrous from the beginning, more thinly hirsute on the other parts than in the species. For several years I have observed a variation of this species that had a less dense pubescence and a stem glabrous up to the first branch and frequently up to the second. It is not by any means as common as the more hirsute type, but has been observed in a number of localities. Detroit, No. 5256, June

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. Pl. Jap. 21, 1919; Pontiac, No. 5267, June 29, 1919; Pittsfield, No. 6208, June 28, 1922; Ecorse, No. 6921, June 11, 1924.

Coriandrum sativum, Linn. It has been some years since this was found on waste grounds in Detroit, but again it has been collected. No. 6984, July 25, 1924.

Anethum gravolens, Linn. Another station for the Dill has been discovered. It was found along the grassy border of a foot path. Amy, No. 6977, July 16th. Still another, this time at Detroit along the sides of unpaved streets. No. 7034, Aug. 15, 1924; also at Detroit, No. 5398, Oct. 15, 1919.

Andromeda glaucophylla, Link. In the sphagnum borders of Andrews Lake. Rare. No. 7288, Oct. 22nd. Also at Walled Lake, No. 4479, June 5, 1917; Pontiac, No. 4221, June 18, 1916; and Eagle Harbor, No. 6626, June 29, 1923.

Samolus floribundus, HBK. In a ditch near Wayne with Ludwigia & Proserpinaca. No. 7147, Sept. 10, 1924.

Bartonia Virginica (L.) BSP. Slender and inconspicucus. In moist, sandy woodlands. Rare. In the summer months the flowers are yellowish; but in the autumn months the flowers are more apt to be purplish. Near Erie, No. 6995, July 30th. Previously collected at Dearborn by Billington and Farwell, No. 5600a, Aug. 15, 1920 and by myself at Algonac, No. 4100d, Sept. 11, 1915.

Apocynum Farwellii, Greene. This species was found on railroad embankments where it was plentiful. Parkedale, No. 6938, July 2nd. Associated with it was var. glaucum, Farwell. The variety differs in being entirely glabrous and glaucous, and in having shorter, broader leaves which are ovate oblong. Parkdale, No. 6939, July 2nd.

Volvulus sepium, (L.) Junger var. Americanus (Sims) Farwell. Near Ann Arbor a very luxuriant form is found that has a second peduncled flower arizing from the axil of one of the bracts subtending the first flower. No. 7038, Aug. 20, 1924.

Volvulus spithamaeus (Linn.) n. comb. Convolvulus spithamaeus Linn. Sp. Pl. (1753) 158. V. spithamineus O. K. Rev. Gen. Pl. (1891) 447. Erect, usually branched, twining,

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pith-O. K. ning, leaves deeply auricled and abruptly short acuminate, flowers in the axils of the middle leaves. Scarce in southerstern Michigan. Orion, No. 6930, June 25th and July 23, 1924.

Volvulus spithamaeus var. stans. (Mx.) n. comb. Convolvulus stans Mx. Fl. Bor. Am. I (1803) 136. Similar, but not twining, leaves shallowly auricled or rounded at base, flowers in the basal axils. Common in southeastern Michigan. Oxford, No. 6924, June 25th and July 23, 1924. In both of these varieties, the branches much exceed the short stems, as a rule.

Phlox subulata, L., f. albiflora, Britt. White pilose but slightly, if at all, glandular; corolla white, the deeply emarginate or obcordate lobes with two magenta lines at their bases. With the typical form of the species but scarce. Orion, No. 6902, June 4th.

Myosotis laxa, Lehm. Found in water in a swampy region; scarce. Parkedale, No. 6945, July 2nd.

Teucrium Menthifolium, Bicknell... Along the railway right of way near Wayne. No. 7157, Sept. 10, 1924. On Squirrel Island in St. Clair River (Canada), No. 7104, Sept. 3rd.

Isanthus brachiatus (L.) BSP. Called False Pennyroyal; abundant near Wayne, No. 7142, Sept. 10, 1924.

Mentha Cardiaca, Gerarde. Intermediate between M. arvensis and M. viridis with the odor of the latter. Monroe Piers, No. 7069, Aug. 27th.

Mentha gentilis, Linn. Odor somewhat similar to that of the Spearmint as in the preceding; it has larger floral leaves, yet these are small as compared with those of the next following. Parkedale, No. 7011, Aug. 7th; near Redford, No. 7248a, Oct. 8th.

Mentha arvensis, Linn. Good, typical forms of this species of Wild Mint have been found; it intergrades with its var. Canadensis and it is difficult to place some of the intermediate forms. The var. is by far the commoner form here. Parkedale, No. 7012, Aug. 7th; Monroe Piers, No. 7070, Aug. 27th, and at Washington, No. 8196, June 21, 1922.

Mentha arvensis var. Canadensis (L.) Briquet. Differs in having narrower leaves, acute at bsae. Parkedale, No. 7013, Aug. 7th. We also collected it at Washington, No. 6196a, June 21, 1922. I have collected it previously at Parkedale, No. 2910, July 28, 1912; in Keweenaw Co., No. 299, Aug. 1, 1885; and on Belle Isle, No. 299a, Aug. 13, 1892.

Mentha arvensis, Lim., var. glabrata (Benth.) Fernald. Found in the railroad yards in the southeast section of Pontiac; scarce. No. 6967, July 9th. I have collected it in Keweenaw Co., No. 300, Aug. 1, 1885.

Aureolaria purpurea (Linn.) Farwell. This species as it occurs in Michigan shows three definite sizes of the corolla: No. 1, from 22 to 28 mm. long; No. 2, from 16 to 20 mm. long; and No. 3, from 10 to 14 mm. long. The fruit is the same in all three forms, globular or nearly so and from 4 to 6 mm. in diameter. In No. 1 the calyx teeth are broader and less pointed than in No. 3, while No. 2 is intermediate. No. 1 is very rare in Michigan in so far as my observation goes, and No. 2 is always associated with it; No. 2 is common and is always associated with either No. 1 or with No. 3; No. 3 is by far the commonest and may or may not be associated with either No. 1 or No. 2. It seems better, therefore, to consider these series as varieties of but one species. No. 1 is typical Aureolaria purpurea (Linn.) Farwell. It has been collected at Orion. 908-1/2, Aug. 29, 1895; at Wayne, No. 7153, Sept. 10, 1924.

Aureolaria purpurea, var. intermedia, n. var. This is No. 2 with corollas from 16 to 20 mm. in length. A. intermedia (Porter) Farwell, partly. It has been collected at Wayne, Nos. 7159a and 7154, Sept. 10, 1924; LaSalle, Nos. 7161 and 7162, Sept. 17th; shores of Powell Lake, No. 7197, Sept. 24th; Detroit, No. 7239, Oct. 4, 1924.

Aureolaria purpurea var. paupercula (A. Gr.) n. comb. Gerardia purpurea v. paupercula A. Gr. Syn. Fl. N. Amer. II. 1. (1878) 293. Corollas from 10 to 14 mm. long. It has been collected at LaSalle, No. 7160, Sept. 17th; shores of Powell Lake, No. 7196, Sept. 24th; shores of Cass Lake, No.

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7225, Oct. 1st; Walpole Island, No. 7123 and Squirrel Island, No. 7099, (Canada) Sept. 3rd; also at Walpole Island, No. 5677, Sept. 16, 1920; at Orion, No. 908, Aug. 29, 1895; Detroit, No. 4405, Aug. 27, 1916.

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of No. Aureolaria Skinneriana var. asperula (A. Gr.) Farwell. This variety was collected in dry sandy fields at Rochester. No. 3860, Sept. 7, 1914.

Plantago Rugelli, Dcne. var. alterniflora, Farwell. Scapes 10 to 20 cm. long with from 10 to 30 alterante flowers on the upper half, the lowermost separate, the upper slightly overlapping. Open woodlands near Redford; No. 7255, Oct. 8.

Grindelia squarrosa (Ph.) Dun. Fields near Oxford, No. 7195, Sept. 24th.

Solidago rugosa, Mill. var. glabrata, n. var. Stems glabrous below the panicle otherwise like typical S. rugosa. Moist alder thickets at Algonac;; No. 7273, Oct. 15th.

Solidago rugosa var. laevicaulis, n. var. Stems glabrous below the panicle otherwise like S. rugosa var. villosa. Moist woodlands; Algonac, No. 7272, Oct. 15th.

Solidago aspera, Ait. One of our common Goldenrods on open, dry grounds. Algonac, Nos. 7257a, 7258a, 7261, Oct. 15th.

Solidago aspera, Ait. var. axillaris, Farwell. With the species but rather scarce. Algonac, No. 7269, Oct. 15th.

Solidago graminifolia (Linn.) Salib. The Bushy Goldenrod in its typical form is not very frequent in southeastern Michigan. We have collected it as follows: Monroe Piers, No. 7071, Aug. 27th; Squirrel Island in St. Clair River (Canada) No. 7101, Sept. 3rd; Ypsilanti, No. 6327, Aug. 9, 1922; Orion, No. 6832, Sept. 26, 1923.

Solidago graminifolia var. septentrionalis, Fernald. This variety is the commoner form of the species on the Keweenaw Peninsula. The upper half of the involucral scales are green and the lateral branches conspicuously overtop the stem. Clifton, No. 484, Sept. 12, 1886 and Aug. 16, 1921.

Solidago graminifolia var. Nuttallii (Greene) Fernald.

This is the common form of the species in southeastern Michigan where it is abundant. Whole plant densely hirtellus. We have collected it as follows: LaSalle, Nos. 7171, 7172, 7173, Sept. 17th; Squirrel Island in St. Clair River (Canada) No. 7119, Sept. 3rd; Hamburg, No. 6757, Sept. 5, 1923; Oxford, No. 4769, Oct. 16, 1917; Junior, No. 4802-1/2, Oct. 28, 1917; Wayne, No. 7158, Sept. 10, 1924; Parkedale Farm, No. 3871, Sept. 7, 1914; Detroit, No. 484a, Aug. 31, 1892.

Solidago Gillmanni (A. Gr.) Steele. This Goldenrod was collected on Bois Blanc Island at the head of Lake Huron in August by Mr. and Mrs. F. W. Robinson of Detroit. They report it as quite plentiful there. This extends the known range eastward to the shores of Lake Huron, Mackinaw City being the point furtherest east previously reported.

Solidago neglecta, T. & G. var. simulata, Farwell. Borders of Powell Lake. No. 7207, Sept, 24th.

Aster azureus, Lindl., f. incarnata, n. f. Rays pink. Fields at Oxford. Occasional; No. 7191, Sept. 24th.

Aster Lowrieanus, Porter. The leaves underneath are sparsely pubescent. Dry, open woodlands at Cass Lake; No. 7227, Oct. 1st.

Aster sagittifolius, Willd. var. urophyllus (Lindl.) Burgess. Differs from the usual form of this variety in lacking the pilose pubescence on the under side of the leaves. It has the narrow inflorescence of this variety with the branches terminated by a thyrse-like raceme; rays white. In dry, open woodlands at Cass Lake; No. 7228, Oct. 1st.

Aster lateriflorus (Linn) Britt. var. bifrons (A. Gr.) Fernald. In dry, open woodlands at Cass Lake; No. 7229, Oct. 1st.

Erigeron ramosus (Walt.) BSP. var. septentrionalis, Fernald & Wiegand. (Var. integrifolius (Biegel.) Farwell.) In publishing this variety I had overlooked the earlier name of Fernald and Wiegand.

Erigeran Canadensis, Linn. var. pusillus (Nutt.) Barton. This variety as reported consists only of starved, depauperate for

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ate forms of the species and is not the E. pusillus Nutt. as redefined by Dr. Robinson.

Antennaria petaloidea, Fernald. Differs from A. neglecta in having a corymbiform inflorescence, that of the latter being racemiform. Ecorse, No. 6908, June 11, 1924.

Artemisia elatior, Linn. var. heterophylla, Farwell. Monoecious or dioecious, usually of low stature; lower leaves bipinnatifid, upper and those of the branches from entire to pinnatifid. Staminate spike often 12 mm. thick, the heads 4 to 6 mm. in diameter. In sandy fields near Redford, No. 7248, Oct. 8th.

Rudbeckia aspera, Pers. (R. Sullivantii Boynton and Beadle; R. speciosa var. Sullivantii Robinson). One of the plants or species called Yellow Daisy or Black-eyed Susan. In wet grounds. Scarce. Rochester, No. 2111, Aug. 15, 1909; Stony Creek, No. 3808, July 30, 1914; Parkedale, No. 4650, Sept. 27, 1917.

Helianthus annuus, Linn. Woodlands at LaSalle. No. 7183, Sept. 17th.

Helianthus lenticularis, Dougl. Railway right of way at at Wayne, No. 7155, Sept. 10, 1924.

Helianthus mollis Lam. Along fence rows in dry grounds near Wayne. No. 7136, Sept. 10, 1924. Only one station, Manistee, mentioned in the Michigan Flora.

Achillea asplenifolia, Vent. Along railroad embankments; scarce. Rochester, No. 6932, July 2nd.

Centaurea maculosa, Lam. On sterile or sandy grounds near Orion. No. 6978, July 23, 1924.

Hieracium scabrum, Mx. var. tonsum, Fernald. In thin woodlands. LaSalle, No. 7176, Sept. 17th. Associated with it were the typical form of the species, No. 7175; H. subnudum (Monn.) Froel. var. folisum (Mx.) Farwell, No. 7178; and var. hirsutissium (T. & G.) Farwell, No. 7177. The var. hirsutissimum differs from other variteies of H. subnudum in its longer, shaggy pubescence, the white hairs arising from purplish papillae.

Prenanthes alba, Linn, var. ovate, Farwell. Woodlands

at LaSalle. Leaves large, deltiod-ovate, denticulate. No. 7181, Sept. 17th.

ADDENDUM

Through the kind permission of Dr. J. A. Nieuwland of the University of Notre Dame, I am enabled to incorporate some very interesting finds which he has made while on various botonical excursions into Michigan.

Polypodium virginianum, Linn. Rogers Creek in Van Buren Co., Aug. 13, 1918. A new station for the Polypody in the Lower Peninsula.

Lycopodium inundatum, Linn. Muskegon Lake, Aug. 23, 1918.

Lycopodium clavatum, Linn var. brevispicatum. Peck. Spikes short (1.5 cm.) blunt, in pairs. The peduncles are 8 cm. long, intermediate between the typical forms of this variety and the species but the specimens seem to belong here rather than with the species. At Muskegon Lake, Aug. 24, 1918.

Robinia viscosa, Vent. The Michigan Flora gives but one station, Ionia. Dr. Nieuwland has found it on the clay cliffs north of Stephensville. The location is a wild place with no possibility that the species has been planted there. July 20, 1918.

Meibomia nudiflora (L.) O. K. f. foliolata Farwell. This form with leaves on the scapes, Dr. Nieuwland has found in the vicinity of Christiana Lake, North of Elkhart, Aug. 6, 1924.

All of the three lower racemes have from 2 to 3 leaves below the flower axils.

Galinsoga parviflora, Cav. var. hispida, DC. Dr. Nieuw-land collected Galinsoga from near Christiana Lake, which proves to be this variety, the only form of the species known to occur in Michigan. The Michigan Flora gives Galinsoga parviflora Cav. at Detroit on the authority of W. S. Cooper; but all that occurs in Detroit and it is abundant there, is of

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soga oper; is of this variety. Recently, Blake has renamed it G. ciliata (Raf.) Aug. 10, 1924.

Echinops sphaerocephalus, Linn. This species is one of the thistle tribe, often cultivated in this country whence it escapes to waste places. Dr. Nieuwland has found a large stand of it on the road to Adamsville.

Selaginella rupestris (Linn.) Spring. Four mile Road, Detroit. This is a new station for this species in Michigan, perhaps the furthest south known.

Xyris flexuorsa, Muhl. At Bankson Lake, Cass Co., Aug. 24, 1914.

Quercus Primnus, Linn. Between Horbert and Sawyer on sand dunes in Berrien Co., July 22, 1918. Probably new to the State as I have seen no record of this species from Michigan.

Persecaria grandifolia, Sheld. In Bankson Lake, July 20, 1918. Stems assurgently rising over 1 foot out of the water.

Silene conica, Linn. Adventive at Stevensville, 1911. Probably the first record for this State. (See Midl. V. II., p. 264.)

Thlaspi arvense, Linn. Benton Harbor.

Drosera longifolia, Linn. (D. intermedia Hayne). Manistee, Aug. 30, 1919.

Althaea officinalis Linn. An escape along the tracks of the Michigan Central at Galien.

Malva sylvestris Linn. Associated with Althaea, just mentioned.

Hibiscus Moscheutos, Linn. This has the peduncles adnate to the peticles. River bottoms at St. Joseph. Aug. 10, 1918.

Viola candidula, Nieuwd. Benton Harbor.

Lepargyroea canadensis (L.) Greene. Sand dunes at Stevensville, July 20, 1918.

Sabbatia angularis (L.) Pursh. At Bankson Lake, Aug.

17, 1915. Found only in the southwestern part of the State. Catalpa Kaempferi, Lieb. and Zucc. Persistant in a deserted yard east of Bankson Lake, Cass Co. Aug. 24, 1914.

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The Native Flora of the Vicinity of Cold Spring Harbor, N. Y.

Continued from November Issue.

N. M. GRIER.

The following species of diatoms, normally part of the plankton of adjoining regions may under varying conditions be found in Cold Spring Harbor, according to Bigelow* and Fish.**

BIDDULPHIOIDEAE.

Bacteriastrum delicatulum (Cleve)—C. J. Fish. Bacteriastrum sp.-H. B. Bigelow. Bellerochea malleus (Brightw.) - C. J. Fish. Biddulphia alterans (Bailey) v. h.—C. J. Fish. Biddulphia favus (Ehrb.) v. h.—C. J. Fish. Biddulphia granulata (Roper)—C. J. Fish. Biddulphia biddulphiana (Smith)—C. J. Fish. Biddulphia rhombus (Ehrb.)—C. J. Fish. Biddulphia vesiculosa (Agard.)—C. J. Fish. Chaetoceros atlanticum (Cleve)—C. J. Fish. Chaetoceros boreale (Schütt.)—C. J. Fish. Chaetoceros cinctum (Gran)—C. J. Fish. Chaetocoros coarctatum (Lauder)—C. J. Fish. Chaetoceros contortum (Schütt.)—C. J. Fish. Chaetoceros eriophilum (Castr.)—C. J. Fish. Chaetoceros danicum (Cleve)—C. J. Fish. Chaetoceros debile (Cleve) - C. J. Fish. Chaetoceros decipiens (Cleve)—C. J. Fish. Chaetoceros densum (Cleve)—C. J. Fish. Chaetoceros diadema (Ehrb.)—C. J. Fish.

^{* 1912.} Bigelow, H. B. Exploration of the coastal water of the N. E. United States in 1916 by the U. S. Fisheries Schooner Grampus. Bull Mus. Com. Zoology at Harvard College. Vol. LXV., No. 5.

^{**} Fish, C. J. From manuscript dealing with the plankton of the Woods Hole, Mass., region to be published by the U. S. Bureau of Fisheries.

Chaetoceros didymum (Ehrb.)—C. J. Fish.
Chaetoceros laciniosum (Schütt.)—C. J. Fish.
Chaetoceros lorenzianum (Gran)—C. J. Fish.
Chaetoceros mitra (Bailey)—C. J. Fish.
Chaetoceros peruvianum (Brightw.)—C. J. Fish.
Chaetocerios schüttii (Cleve)—C. J. Fish.
Chaetocerios schüttii (Cleve)—C. J. Fish.
Chaetoceros teres (Cleve)—C. J. Fish.
Chaetoceros willei (Gran)—C. J. Fish.
Chaetoceros sp.—H. B. Bigelow and C. J. Fish.
Climacodium biconcavum Cl.—H. B. Bigelow.
Ditylium brightwelli (West)—C. J. Fish.
Ditylium sp.—C. S. H. vicinity—N. M. G.

DISCOIDEAE.

Actinoptychus undulatus (Kuetz) Ralfs—C. J. Fish.
Coscinodiscus sp.—H. B. Bigelow.
Coscinosdiscus subbulliens (Ehrb.)—H. B. Bigelow.
Hyalodiscus stelliger (Bailey)—C. J. Fish.
Lysigonium moniliforme (Muell.)—Link.
Melosira sulcata (Kuetz)—C. J. Fish.
Skeletonema costatum (Grev.)—C. J. Fish.
Stephanopyxis Turris (Grev.) Ralfs—C. J. Fish.
Stephanopyxis sp.—H. B. Bigelow.
Thalassiosira decipiens (Grun)—C. J. Fish.
Thalassiosira hyalina (Grun)—C. J. Fish.
Thalassiosira nordenskioldii (Cleve)—C. J. Fish.

FRAGILLARIOIDEAE.

Asterionella japonica (Cleve)—H. B. Bigelow and C. J. Fish. Fragilaria crotonensis (M. Edwards)—C. J. Fish. Grammatophora marina (Lyngb.) Kuetz.—C. J. Fish. Grammatophora serpentina (Ehrb.)—C. J. Fish. Licmophora flavellata (Smith)—C. J. Fish. Licmophora lyngbyei (Kütz) Grun.—C. J. Fish. Rhabdonema adriaticum (Kütz)—C. J. Fish. Striatella unipunctata (Lyngby) Ag.—C. J. Fish. Synedra gallionii (Boyer)—C. J. Fish. Synedra undulata (Bailey)—C. J. Fish.

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Thalassiothrix frauenfeldii (Grun)—C. J. Fish, H. B. Bigelow. Thalassiothrix longissima (Cleve and Grun)—C. J. Fish and H. B. Bigelow.

Thalassiothrix nitzschioides (Grun)—C. J. Fish and H. B. Bigelow.

NAVICULOIDEAE.

Nitzschia closterium (Smith)—C. J. Fish. Nitzschia longissima (Breb.) Ralfs—C. J. Fish. Nitzschia paxillifer (O. F. Mueller) Heiberg—C. J. Fish. Nitzschia seriata (Cleve)—H. B. Bigelow and C. J. Fish.

SOLENIOIDEAE.

Corethron valdiviae (Karstan)—C. J. Fish.

Guinardia sp.—H. B. Bigelow.

Guinardia flaccida (Castr.)—C. J. Fish.

Leptocylindrus danicus (Cleve)—C. J. Fish.

Rhizoselenia alata (Brightw.)—H. B. Bigelow.

Rhizoselenia alata f. genuina (Gran)—C. J. Fish.

Rhizoselenia alata f. gracillima (Cleve)—C. J. Fish.

Rhizoselenia calcar avis (Schultze)—H. B. Bigelow.

Rhizoselenia delicatula (Cleve)—H. B. Bigelow.

Rhizoselenia faeroeensis (Ostf.)—H. B. Bigelow.

Rhizoselenia hebetata var. semispina (Henson)—H.B.Bigelow.

Rhizoselenia setigera (Brightw.)—H. B. Bigelow.

Rhizoselenia shrubsolei (Cleve)—H. B. Bigelow.

Rhizoselenia styliformis (Brightw.)—H. B. Bigelow.

III.—FLAGELLATAE.*

EUGLENACEAE.

Euglena viridis Ehrb. C. S. H.—N. M. G.
Euglena spirogyra Ehrb. C. S. H.—N. M. G.
Peranema trichphorum Ehrb. 2nd lake. C. S. H.—L. N. J.
Phasus triqueter Ehrb. C. S. H.—A. A. Schaeffer.
Phacus longicauda Ehrb. C. S. H.—A. A. Schaeffer.
Trochelomonas hispida Stein. C. S. H.—A. A. Schaeffer.
Trochelomonas volvocina Ehrb. C. S. H.—A. A. Schaeffer.

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Dinobryan sp. 1st lake, C. S. H.—L. N. J. Uroglena voluox Ehrb., 2nd Lake, C. S. H.—L. N. J.

IV.—DINOFLAGELLATAE.*

GYMNODINIACEAE.

*Gymnodinium gracile (Bergh)—C. J. Fish. Gymnodinium sp. C. S. H.—N. M. G.

PERIDINIACEAE.

Ceratium tripos Nitzsch. C. S. H .- D. S. J.

- *Ceratium longipes (Nitzsch) Bail.—H. B. Bigelow and C. J. Fish.
- *Ceratium fusus (Nitzsch) Duj.—H. B. Bigelow and C. J. Fish.
- *Ceratium macroceras (Nitzsch) Ehrb.—H. B. Bigelow and C. J. Fish.
- *Ceratium bucephalum (Nitzsch) Cl.—H. B. Bigelow and C. J. Fish.
- *Ceratium heterocamptum (Nitzsch)—H. B. Bigelow and C. J. Fish.

Dinophysis caudata Kent, C. S. H.-N. M. G.

- *Glenodinium compressa Calkins-C. J. Fish.
- *Gonyaulax tricantha Jorg.-C. J. Fish.
- *Peridinium depressum Bailey-C. J. Fish.
- *Perilinium oceanicum var. oblongum Aurivillus—C. J. Fish. Peridinium sp.

SILICOFLAGELLATAE.

Distephanus speculum Haeckel—C. J. Fish. Dictyocha fibula Ehrb.—C. J. Fish.

^{*} Species starred are those normally a part of the plankton of the adjoining regions, and under varying conditions may be found in Cold Spring Harbor. I am indebted to Dr. C. J. Fish of the U. S. Bureau of Fisheries, Woods Hole, Mass., and Dr. H. B. Bigelow, Museum of Comparative Zoology, Harvard College, Cambridge, Mass., for the data they have supplied.

^{*} Nomenclature revised provisionally by Professor C. A. Kofoid, University of California for whose cooperation the writer desires to express his appreciation.

VI.—CONJUGATAE.*

DESMIDIACEAE.

- Arthrodesmus convergens Ehrb. Common in Jarvis Pond, C. S. H.-L. N. J.
- Arthrodesmus fragilis Wolle. Common in Jarvis Pond, C. S. H.—L. N. T.
- Cosmarium Everettense Wolle. Common in Jarvis Pond, C. S. H.-L. N. J.
- Cosmarium ornatum Ralfs. Common in Jarvis Pond, C. S. H. -N. M. G.
- Cormarium ovale Ralfs. Common in Jarvis Pond, C. S. H.—L. N. J.
- Cosmarium tetropthalmum (Kg.) Breb. Common in Jarvis Pond, C. S. H.—L. N. J.
- Desmidium baileyii (Ag.) Ralfs. Common in Jarvis Pond, C. S. H.—L. N. J.
- Eurastrum verucosum (Ehrb.) Ralfs. Common in Jarvis Pond, C. S. H.—L. N. J.
- Hyalotheca dissiliens var. apiculata Ehrb. (Breb.) Common in Jarvis Pond, C. S. H.—L. N. J.
- Micrasterias fimbriata (Ralfs.) Nordst. Common in Jarvis Pond, C. S. H.-L. N. J.
- Micrasterias laticeps Nord. Jarvis Pond, C. S. H.—N. M. G. Micrasterias muricata Bailey. Jarvis Pond, C. S. H.—L.N.J. Micrasterias radiata Hass. Common in Jarvis Pond, C. S. H.
- —L. N. J. Micrasterias Sol (Ehr.) Kuetz. Common in Jarvis Pond, C. S. H.—L. N. J.
- Netrium digitus (Ehr). Itzigs and Rothe. Common in Jarvis Pond, C. S. H.—N. M. G.
- Penium libellula (Focke) Nordst. C. S. H.-L. N. J.
- Spondylosium tetragonum West. Jarvis Pond, C.S.H.—L.N.J. Staurastrum Artiscon, (Ehr.) Lund. Jarvis Pond, C. S. H. L. N. J.
- Staurastrum crenulatum (Naeg.) Delp. Jarvis Pond, C. S. H. -N. M. G.
- Staurastrum cuspidatum Breb. Jarvis Pond, C. S. H.—L.N.J. Staurastrum gracile Ralfs. Jarvis Pond, C. S. H.—L. N. J.

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Kofoid, esires to Staurastrum pentacladium Wolle. Jarvis Pond, C. S. H.—L. N. J. •

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- Staurastrum tohopekaligense Wolle. Jarvis Pond, C. S. H.— L. N. J.
- Staurastrum vestitum Ralfs. Jarvis Pond, C. S. H.-L. N. J.

MESOTAENIACEAE.

- Closterium didymoticum Corda. Jarvis Pond, C. S. H.—N. M. G.
- Closterium moniliferum (Broy.) Ehrb. Jarvis Pond, C. S. H.-L. N. J.
- Gymnozyga moniliformis Ehr. Jarvis Pond, C. S. H.—L.N.J. Spirotaenia condensata Breb. Jarvis Pond, C. S. H.—L. N. J.

ZYGNEMATACEAE.*

- Spirogyra orthospira (Naeg.) Jarvis Pond, C. S. H.—L.N.J. Spirogyra mirabile, (Hass) Kuetz. Jarvis Pond, C. S. H.—L. N. J.
- Spirogyra varians (Hass) Kuetz. Fish Hatchery Pond, C. S. H.—E. N. T.

^{*} Revised following principally the nomenclature given in "British Desmidiaceae" Vol. I-IV. W. West and G. S. West, Vol. V. Nellie Carter. London, 1905, 1908, 1909, 1912 and 1923. Published by the Ray Society.

Revised following Collins, loc cit.

Zygnema cruciatum (Vauch.) Agardh. Glen Cove, L. I.
—Jelliffe.

Zygnema pectinatum (Vauch.) Agardh. 1st Lake, C. S. H. —L. N. J.

Zygnema stellinum, Ag. (Muell.) Agardh. Jarvis Pond, C. S. H.—L. N. J.

Other CONJUGATAE listed by Jelliffe as being frequent throughout the island in pond, etc., are (Desmidiaceae.)

Arthrodesmus Incus (Breb.) Hass.

Cosmarium botrytis Menegh.

Cosmarium Dianae Ehrb.

Cosmarium moniliforme (Turp.) Ralfs.

Cosmarium subcostatum (Nordst.) var. Beckii Gutw.

Euastrum ansatum Ralfs.

Micrasterias Americana (Ehrb.) Ralfs.
Micrasterias Torreyi Bailey.
Staurastrum aristiferum Ralfs.
Staurastrum brachiatum Ralfs.
Staurastrum brevispium Breb.
Staurastrum dejectum Breb.
Staurastrum hirsutum (Ehrb.) Breb.
Staurastrum polymorphum Breb.
Staurastrum punctulatum Breb.
Staurastrum Sebaldi Reinsch.

Xanthidium cristatum Breb.

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MESOTAENIACEAE.

Closterium Dianae Ehrb.
Closterium Ehrenbergii Menegh.
Closterium gracile Ehrb.
Closterium striolatum Ehrb.
Closterium rostratum Ehrb.
Docidium crenulatum (Ehrb.) Rab.
Pleurotaenium Ehrenbergii (Ehrb.) Naeg.
Closterium Lunula (Muell.) Ehrb.

VII.—CHLOROPHYCEAE.*

BOTRYDIACEAE.

Botrydium granulatum (L.) Grev. Meadows south of lakes, C. S. H.—N. M. G.

BRYOPSIDACEAE.

Bryopsis plumosa (Huds.) Agardh. Occasional on rocks and wharves at month of harbor, C. S. H.—D. S. J.

Chaetomorpha aerea (Dillw.) Kuetz. Bottom of harbor, C. S. H.—D. S. J.

Chaetomorpha aerea forma linum (Fl. Dan.) Collins. Inner Harbor near sandspit, C. S. H.—N. M. G.

Rhizoclonium riparium (Roth) Harvey. Stones, mats, on Spartina, in brookish water, C. S. H.—H. H. Y.

Rhizoclonium tortuosum Kuetz. Mats and tangles on mud. brookish water, C. S. H.—D. S. J. and H. H. Y.

Rhizoclonium sp. Two species, old pier, mud, C. S. H. — D. S. J.

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- Chaetophora sp. In fish boxes near church at 1t. lake, C. S. H.—H. H. Y.
- Chastophora pisifornis (Roth) Ag. On Fontinalis at mill race from near lower pond, C. S. H.—D. S. J.
- Draparnaldia plumosa (Vauch) Ag. Fish Hatchery pond— E. N. T.
- Draparnaldia glomerata (Vauch) Ag. In pools, quite commonly distributed—Jelliffe.

CLADOPHORACEAE.

- Cladophora expansa (Mert) Kuetz. Inner Harbor near the tide run.—N. M. G.
- Cladophora fracta (Dillw.) Kuetz. Shoals at inner end of Center Island.—G. C. F.
- Cladophora gracilis (Griff.) Kuetz. Laurelton pier.—H. H. Y. Spongomorpha arcta (Dillw.) Kuetz. Common throughout L. I.—Jelliffe.
- Spongomorpha lanosa (Roth) Kuetz. Not infrequent in Long Sound.—Jelliffe.

COELASTRACEAE.

- Scenedesmus obliquus (Turp.) Kuetz. 2nd Lake, C. S. H.— N. M. G.
- Scenedesmus obliquus (Turp) var. dimorphus. Hans. Frequent on L. I.—Jelliffe.
- Scenedesmus quadricauda (Turp.) Bres. 2nd Lake, C. S. H. -N. M. G.

HYDRODICTYACEAE.

- Pediastrum Boryanum (Turpin) Fish Hatchery pond, C. S. H.—E. N. T.
- Pediastrum tetras (Ehr.) Ralfs. 2nd Lake, C.S.H.-N.M.G.

^{*}Revised following nomenclature given in "The Green Algae of North America" F. S. Collins, Tufts College Studies, Scientific Series. Vol. 2, 3, 4. Additional publications used in making identifications in this and following two groups: were "Marine Algae of New England" W. C. Farlow. Report U. S. Commissioner of Fish and Fish-Adjacent Regions" W. D. Hoyt. Bulletin U. S. Bureau of Fisheries, Vol. 36, 1917-18.

Pediastrum duplex (Meyen) Kg. 2nd Lake, C.S.H.—N.M.G. Hydrodictyon Reticulatum (L.) Lager. Frequent throughout L. I.—Jelliffe.

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OEDOGONIACEAE.

- Oedogonium crassiusculum, var. Idios Wittr. Dying pond, C. S. H.—E. N. T.
- Oedogonium grande, Kg. Fish Hatchery pond, C. S. H.—E. N. T.
- Oedogonium Pringsheimii Cram. On Ceratophyllum in 1st Lake, C. S. H.—D. S. J.
- Oedogonium rufescens var. exiguum Wittr. Dying pond, C. S. H.—E. N. T.

PLEUROCOCCACEAE.

Pleurococcus vulgaris Menegh., C. S. H. vicinity—N. M. G. Stichococcus bacillaris. Naeg., C. S. H. vicinity—D. S. J.

PROTOCOCCAEAE.

Palmellococcus miniatus (Leib) Chodat, C.S.H.—N.M.G. Zoochlorella parasitica (Beyer) Brandt. On fresh water sponge in dying pond, C. S. H.—E. N. T.

TETRASPORACEAE.

- Dictyosphaerium Ehrenbergianum Naeg. Frequent.—Jelliffe Kirchnerella lunaris (Kirchner) Moebius. Frequent, L. I.—Jelliffe.
- Rhaphidium falcatum (Cooke) var. aciculare (A. Br.) Hans. C. S. H.—E. N. T.
- Tetraedron regulare var. longispinum (Perty) Hans. Frequent. L. I.—Jelliffe.
- Tetraspora lubrica (Roth) Ag. Frequent throughout.—Jelliffe.

ULVACEAE.

- Enteromorpha plumosa Kuetz. Near Laurelton pier.—H.H.Y. Enteromorpha prolifera (Fl. Dan.) J. Ag. Estuary, C. S. H. —D. S. J.
- Ilea fulvescens (Ag.) J. G. Ag. Estuary, C. S. H.—N. M. G. Monostroma crepidinum Farl. Estuary, C. S. H.—D. S. J.
- Monostroma latissimum (Kuetz) Wittr. Fresh water inlets, C. S. H.—H. H. Y. and D.S.J.

Monostroma pulchrum Farlow. Frequent.-Jelliffe.

Ulva Lactuca. (L) Le Jolis var. latissima Le Jolis. On muddy bottom, C. S. H.—D. S. J.

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VALONIACEAE.

Dictyocystis Hitchcockii (Wolle) Lag. Common bottom 2nd Lake, C. S. H.—N. M. G.

VAUCHERIACEAE.

Vaucheria sessilis (Vauch) De Cond. In springs and pools back of school house, C. S. H.—D. S. J.

Vaucheria Thuretii Wor. Near fresh water inlets, wet areas near tide pools, C. S. H.—D. S. J.

VOLVOCACEAE.

Chlamydomonas sp. Common-Jelliffe.

Gonium pectorale Muell. Frequent throughout the island.—
Jelliffe.

Haematococcus pluvialis, (Flotow) Sommerf. Common throughout.—Jelliffe.

Pandorina Morum (Muell.) Bory. C. S. H.-D. S. J.

Volvox aureus Ehr. Ponds, C. S. H.-E. N. T.

Volvox globator L. Not infrequent. Local.—Jelliffe.

CHAROPHYTA.

CHARACEAE.

Chara formosa C. B. Robinson. Southold, L. I.—Burnham and Latham.*

Nitella flexilia Ag. Southold, L. I.— Burnham and Latham. Nitella intermedia L. Southold, L. I.—Burnham and Latham. Nitella transilia Allen. Southold, L. I.—Burnham & Latham. Nitella sp. Dying Pond. Cold Spring Harbor.—O. E. J.

PHAEOPHYCEAE.*

CHORDARIACEAE.

Chorda Filum (L) Stack. Frequent on stones at Lloyd's Point, L. I.—D. S. J.

Leathesia difformis (L) Aresch. Occasional on Fucus at Loyd's Point, L. I.—D. S. J.

^{*} Torreya 23.

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Desmerestia viridis (Fl. Dan.) Lamx. Common throughout sound.—Jelliffe.

DICTYOSIPHONACEAE.

Dictyosiphon foeniculasius (Huds.) Grev. Not infrequent along coast.—Jelliffe.

ECTOCARPACEAE.

- Ectocarpus confervoides (Roth) Le Jolis. C. S. H.—D.S.J.
- Ectocarpus fasciculatus, Harvey. Not infrequent on L. I.
 —Jelliffe.
- Ectocarpus siliculosis (Dillw.) Ag. Sticks, stones, inner harbor, C. S. H.—D. S. J.
- Ectocarpus tomentosus Lyngb., C. S. H.-D. S. J.
- Elachistea fucicola (Valley) Fries. Long Island Sound.— N. M. G.
- Mesogloia divaricata (Ag.) Kuetz. Common flats inner harbor, C. S. H.—D. S. J.
- Myrionema vulgare. Thur. L. I. Sound, stone pier, C. S. H. -N. M. G.
- Myriotricha filiformis. Harv. Tide stream Center Island growing on Zostera.—G. C. F.
- Pylaiella littoralis (L) Kjell. Inner harbor, inlet on sticks and stones.—D. S. J. and H. H. Y.

ENCOELIACEAE.

Punctaria latifolia Grev. Common throughout L. I.—Jelliffe. Punctaria plantaginea (Roth) Grev. Not infrequent on L. I.—Jelliffe.

^{*} Manuscript of this group and of the Rhodophyceae revised by Professor I. F. Lewis of the Marine Biological Laboratory, Woods Hole, Mass., and The University of Virginia.

Scytosiphon lomentarius (Lyngb.) J. Ag. Inner harbor, C. S. H.—D. S. J. and H. H. Y.

Stilophora rhizoides (Ehrb.) J. Ag. Long Island Sound.— Jelliffe.

Streblonema reptans (Crouan) Farlow, C. S. H.—D. S. J.

Petalonia fascia (Mueller) Kuetz. Common throughout coast
—Jelliffe.

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- Ascophyllum nodosum (L) Le Jolis. Common on rocks, outer and inner harbor, C. S. H.—D. S. J.
- Fucus evanescens Ag. Common on rocks, C. S. H.—D. S. J. Fucus platycarpus Thuret. Stones, piles, docks, inner harbor.—D. S. J.
- Fucus vesiculosus (L). Common on rocks inner and outer harbor.—D. S. J.
- Fucus vesiculosus (L) var. spiralis Farlow, C .S. H., Lloyd's Pt., L. I.—D. S. J.
- Sargassum bacciferum (Turn.) J. Ag. Washed ashore throughout L. I.—Jelliffe.
- Sargassum filipendula Ag. Frequent on rocks at Lloyd's Pt., L. I.—D. S. J.

LAMINARIACEAE.

- Laminaria Agardhii Kjell. Found all along coast, L. I.—
 Jelliffe.
 RALFSIACEAE.
- Ralfsia Bornetii Kuckuck. Reported from Connecticut.—I. F. Lewis.
- Ralfsia clavata (Carm.) Farlow. Piles, docks, inner harbor, C. S. H.—D. S. J. and H. H. Y.
- Ralfsia verrucosa Aresch. Reported from Connecticut.—I. F. Lewis.

SPHACELARIACEAE.

- Sphacelaria cirrhosa (Roth) Ag. Common on Fucus in Sound.—D. S. J.
- Sphacelaria radicans (Dillw.) Ag. Dredged near lighthouse, C. S. H.—D. S. J.

STRIARACEAE.

Striaria attenuata Grev. Not infrequent on L. I. Sound.— Jelliffe..

RHODOPHYCEAE.

BANGIACEAE.

Bangia ceramicola Chauv. Occasional on Ceramium. C. S. H. — D. S. J.

Bangia fusco-purpurea (Dillw.) Lyngb. Common throughout on piling.—Jelliffe.

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Porphyra Laciniata (Lightf.) Ag. Common on stones, tidal inlets, C. S. H.—D. S. J.

CERAMIACEAE.

Antithamnion americanum (Herv.) Farlow. Lloyd's Point, L. I.—N. M. G.

Antithanion cruciatum (Ag.) Naeg. On rocks Lloyd's Point, L. I.—N. M. G.

Callithamnion Borreri (Eng. Bot.) Harv. Common throughout.—Jelliffe..

Professor Lewis states this species is not recognized as occurring on the New England Coast, and that the species meant it is possibly *C. corymbosum* (Eng. Bot.) Ag.

Callithamnion Baileyi, Harv. Common throughout.—Jelliffe. Callithamnion byssoideum Arn. Not infrequent throughout.
—Jelliffe.

Callithannion roseum (Roth) Harvey, Lloyd's Pt. L. I. Tidal inlets, C. S. H.—D. S. J.

Ceramium circinnatum Kuetz. Glen Cove, L. I.—Jelliffe.

Ceramium fastigiatum Harv. Not infrequent in L. I. Sound.
—Jelliffe.

Ceramium rubrum (Huds.) Ag. On rocks Eaton's Point, abundant on Zostera off sandspit.—N. M. G.

Ceramium rubrum var. proliferum, Harvey, Eaton's Point, L. I.—N. M. G.

Ceramium strictum (Kuetz) Harv. Common on Zostera, C. S. H.—D. S. J.

Ceramium tenuissimum (Lyngb.) J. Ag. Common throughout sound.—Jelliffe.

Griffithsia globifera (Harv.) J. Ag| Occasional on rocks at Lloyd's Pt., L. I.—D. S. J.

Plumaria elegans (Bonnam) Schmitz, Common throughout.

—Jelliffe.

Seirospora Griffithsiana, Harv. Not infrequent throughout.

—Jelliffe.

Spermothamnion Turneri (Mert.) Aresch. Not infrequent in Sound and harbors south shore.—Jelliffe.

Spyridia flamentosa (Wolf.) Harv. Near Laurelton, L. I.— N. M. G.

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CORALLINACEAE.

Melobesia farinosa Lam. Glen Cove, Greenport, L. I.-Jelliffe.

DELESSERIACEAE.

- Caloglossa Le prieurii (Mont.) J. G. Ag. Inner harbor, Tidal Inlet, C. S. H.—D. S. J.
- Grinnellia americana (Ag.) Harv. Common inner harbor, C. S. H.—D. S. J.

GELIDIACEAE.

- Gelidium crinale (Turn) J. Ag. On rocks, Lloyd's Point, L. I.—D. S. J.
- Hildenbrandtia Prototypus Nardo. Inner harbor, Tidal Inlet, C. S. H.—D. S. J.
- Hildenbrandtia rosea Kuetz. Common on stones, pebbles, C. S. H.—D. S. J.

GIGARTINACEAE.

- Ahnfeltia plicata (Turn) Fries. On rocks, shells, Lloyd's Pt., L. I.—D. S. J.
- Chondrus crispus (L) Stack. Common on rocks at Lloyd's Pt., L. I.—D. S. J.
- Phyllophora membranifolia (Good and Wood) J. Ag., C. S. H. vicinity.—N. M. G.

HELMINTHOCLADIACEAE.

- Batrachosperum moniliforme (Roth). Frequent fresh water.

 —Jelliffe.
- Chantransia virgatula (Harv.) Thur. Dredged near lighthouse, C. S. H.—D. S. J.
- Nemalion multifidum (Web and Mohr) J. Ag. Frequent Lloyd's Pt.—D. S. J.

RHODOMELACEAE.

- Bostrychia rivularis Harv. On wood, stones, C. S. H.—H. H. Y.
- Chondria atropurpurea Harv. Glen Cove, L. I.-Jelliffe.
- Chondria dasyphylla (Woodw.) Ag. On rocks Lloyd's Pt.— D. S. J.

Chondria tenuissima (Good and Koodw.) Ag. var. baileyana (Harv.)—D. S. J. and J. Ag. On rocks Lloyd's Pt., inner harbor tidal inlet.—H. H. Y.

Dasya elegans (Mart) Ag. On rocks, inner harbor, tidal inlet, C. S. H.—D. S. J.

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Polysiphonia fastigiata (Roth) Grau? Glen Cove, L. I.—Jelliffe.

Polysiphonia Harveyi, Bailey. Not infrequent, L. I. Sound.

—Jelliqe.

Polysiphonia nigrescens (Dillw.) Grev. Common along coasts.

—Jelliffe.

Polysiphonia Olneyi, Harv. Eaton's Neck, L. I.-H. H. Y. and D. S. J.

Polysiphonia urceolata (Lightf.) Grev. Common on coasts. Jelliffe.

Polysiphonia variegata (Ag.) Zan. Eaton's Point, Sandspit, C. S. H.—D. S. J.

Rhodomela subfusca (Woodw.) Ag. Not infrequent on coasts.—Jelliffe.

RHODOPHYLLIDACEAE.

Agardhiella tenera (J. Ag.) Schmitz, C. S. H. vicinity.—D. S. J.

Cystoclonium purpurascens (Huds.) Kuetz Common throughout.—Jelliffe.

Euthora cristata (L) J. Ag. Infrequent throughout coast.

—Jelliffe.

RHODYMENIACEAE.

Champia parvula (Ag.) Harv. Occasional on rocks, Lloyd's Pt., L. I.—D. S. J.

Halosaccion ramentaceum (L) J. Ag. Not infrequent along coast.—Jelliffe.

Lomentaria uncinata Menegh. Sandspit, C. S. H.—N. M. G. Rhodymenia palmata (L) Grev. Not infrequent along coast.

SPHAEROCOGCACEAE.

Gracilaria multipartita (Clem) Ag. Common along coasts.

—Jelliffe.

SQUAMARIACEAE.

Petrocelis cruenta J. Ag. Inner harbor, Tidal Inlet-D. S. J, and H. H. Y.

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Peyssonellia Rosenvingii Schmitz, C. S. H. Vicinity on pebbles, shells.—D. S. J.

EUMYCETES.*

PHYCOMYCETES.

ALBUGINACEAE.

- Albugo portulacae (DC) O. Kuetz. On P. olevacea in gardens, C. S. H.—A. F. B.
- Cystopus candidus (P.) Lev. On Sisymbrium officinale by roadsides, C. S. H.—M. A. B.

ANCYLISTACEAE.

Ancylistes closterii Pfitzer. Parasitic in Closterium, C. S. H.—N. M. G.

MUCORACEAE.

- Calyptromyces ramosus Karst. Not infrequent on Long Isl. and.—Jelliffe.
- Mucor Mucedo (L.) Ehr. Frequent.-Jelliffe.
- Phycomyces nitens (Agard) Kuetz. Growing on dung in woods, C. S. H.—A. F. B.
- Syzygites aspergillus (Scop.) Pound. Center Island.—N. M. G.

PERONOSPORORACEAE.

Peronospora parasitica (Pers) Fries. On Lepidium virginicum, C. S. H.—A. F. B.

SYNCHYTRIACEAE.

- Synchytrium decipiens Farlow. Common on Amphicarpa monoica, C. S. H.—A. F. B.
- *I am indebted to Dr. A. H. Graves, Brooklyn Botanic Garden, for revision of this list with regard to its most convenient use, according to Saccardo's "Sylloge Fungorum," Oudeman's "Enumeratio Systematic Fungorum, and Engler and Prant.

ASCOMYCETES.

ASCOBOLACEAE.

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- Ascophonus carneus (Pers) Boud. On dung at Lloyds Neck.

 —N. M. G.
- Ascobolus stercovarius (Bull.) Schr. On cowdung at 1st lake.

 —A. F. B.

ASPERGILLACEAE.

- Asperpillus glaucus (L) LK. Common throughout island.—
 Jelliffe.
- Pericillium crustaceum Fr. Frequent throughout Long Island—Jelliffe.

CENANGIACEAE.

Bulgaria inquinans (Pers) Fr. On logs west of lakes.—C. S. H.—D. S. J.

CHAETOMIACEAE.

- Eutypella glandulosa (CK.) Ell. Not infrequent on Ailanthus.—Jelliffe.
- Diatrype stigma (Hoff) Fr. Frequent throughout.—Jelliffe. Nummularia Bulliardi Tul. Frequent throughout.—Jelliffe. Ustilina vulgaris Tul. Frequent throughout.—Jelliffe.

DOTHIDIACEAE.

- Microsphaera alni (Wallr.) Salmon. On lilac back of De Forest estate.—M. A. B.
- Microsphaera grossulariae (Wallr.) Lev. On leaves of Sambucus Canadensis.—Jelliffe.

ERYSIBACEAE.

- Microsphaera quercina (Schw.) Burrill. On Quercus alba, Jamaica.—Jelliffe.
- Phyllactinia guttata Lev. On chestnut leaves. Jamaica, L. I.
 —Jelliffe.
- Sphaerotheca Castagni Lev. Frequent throughout.-Jelliffe.

EXOASCACEAE.

Taphrina alnitorqua (Tul.) Kuhn. Common on Alnus incana.

—A. F. B.

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- Geoglossum americanum (Cooke) Sac. On moss, C. S. H.— D. S. J.
- Geoglossum glutinosum. Pers. On moss near 3rd lake, C. S. H.—M. A. B.
- Geoglossum ophioglossoides (L.) Saccardo. Mossy Banks. C. S. H.—D. S. J.
- Leotia chlorocephala Schw. Marshy ground.-M. A. B.
- Leotia lubrica (Scop.) Pers. Common on ground, C. S. H.— N. M. G.
- Leotia viscosa (Fr.) Schr. Occasional in woods, C. S. H.— D. S. J.

HELOTIACEAE.

- Chlorosplenium aeruginosom (Oed.) DeNot. Decayed wood, C. S. H.—A. F. B.
- Helotium citrinum (Hedw.) Fr. Frequent, L. I.-Jelliffe.
- Helotium subsessile. Schum. Rotten twigs, C. S. H.—N.M.G.
- Monilia cinerea (?) Bon. On plum trees, C. S. H .- A. F. B.
- Sarcosscypha coccinea (Scop.) Sacc. C. S. H.—M. A. B.
- Sclerotina fructigena (Pers.) Schroet. On peach trees, C. S. H.—A. F. B.

HELVELLACEAE.

- Helvella crispa (Scop) Fr. Marsh near 2nd lake, C. S. H.—A. F. B.
- Helvella lacunosa Fries. On ground in woods, C. S. H.— D. S. J.
- Morchella esculenta (L) Pers. Infrequent, L. I.-Jelliffe.

HYPOCREACEAE.

- Chromacrea gelatinosa (Tode) Fr. On rotten logs near first lake, C. S. H.—A. F. B.
- Hypocrea rufa (Pers) Fr. Frequent, L. I.-Jelliffe.
- Hypomyces chrysospermum (Bull) Tul. Common in woods, C. S. H.
- Hypomyces hyalinus. (Schw.) Tul. Common in woods, C. S. H.—A. F. B.
- Hypomyces Lactifluorum (Schw.) Tul. Glen Cove, L. I.— Jelliffe.

Nectria Peziza (Tode) Fr. West of lakes on dead limbs, C. S. H.—A. F. B.

MELOGRAM MATACEAE.

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Endothia parasitica (Murrill) Anderson. Chestnut trees, C. S. H.—M. A. B.

PEZIZACEAE.

- Lachnea scutellata (L.) Sacc. Common on logs, C. S. H.—M. A. B.
- Peziza pustullata. Pers. On ground near 1st lake, C. S. H. —M. A. B.

PYRENONEMATACEAE.

Pyronema confluens Tul. 1st lake. C. S. H.-A. F. B.

RHIZINIACEAE.

Psilopeziza babingtonii Berk? Rotten logs near 1st lake, C. S. H.—D. S. J.

SACCHAROMYCETACEAE.

- Saccharomyces agglutinus Fr. Common L. I.-Jelliffe.
- Saccharomyces cerevisiae Meyen. Frequent L. I.-Jelliffe.
- Saccharomyces niger Marp. Frequent L. I .- Jelliffe.

SPHAERIACEAE.

- Rosellinia subiculata (Schw.) Sacc. On rotten wood, C. S. H.

 —M. A. B.

 XYLARIACEAE.
- Daldinia concentrica (Bolt.) Ces. and De Not. Frequent L. I.
 —Jelliffe.
- Daldinia constricta De Not. On birch log in region of lakes, C. S. H.—M. A. B.
- Hypoxylon coccineum Bull. On beech near lakes, C. S. H.— D. S. J.
- Hypoxylon fuscum (Pers.) Fr. Frequent throughout L. I.— Jelliffe.
- Hypoxylon multiforme Fr. C. S. H .- D. S. J.
- Hypoxylon Sassafras (Schw.) Berk. Common throughout L. I.—Jelliffe.
- Xylaria polymorpha Grev. On decaying logs near lakes. On sand, C. S. H.—M. A. B.

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AGARICACEAE.

Agaricus diminutivis Pk. In woods near DeForest Estate, C. S. H.—M. A. B.

Amanita Frostiana Pk. On ground at Center Island, C. S. H.—M. A. B.

Amanita muscaria (L.) Meadows, C. S. H.-M. A. B.

Amanita phalloides (Fr.) Quel. Glen Cove. L. I.-Jelliffe.

Amanita phalloides var. viridis Pers. Huntington Road, C. S. H.-M. A. B.

Amanita rubescens Fr., C. S. H.-M. A. B.

Amanita strobiliformus Fr., C. S. H.-M. A. B

Amanitopsis vaginata (Bull) Roz. Moist woods. 1st lake, C. S. H.—M. A. B. The three varieties listed as alba., fulva, and livida are also reported.

Amanitopsis volvata Pk. On ground between 1st and 2nd lakes, C. S. H.—G. C. F.

Armillaria mellea Vahl. Frequent throughout island.—Jelliffe. Boletinus cavipes (Opat). Kalckb. On ground near 2nd lake, C. S. H.—D. S. J.

Boletinus porosus var. opacus Pk. On ground west of lower lake, C. S. H.—D. S. J.

Boletinus porosus (Berk.) Pk. On moss, on ground old rail way survey west side of 2nd lake, C. S. H.—D. S. J.

Cantherellus cibarius Fr. On ground back of DeForest Estate, 1st and 2nd lakes, C. S. H.—D. S. J. and G. C. F.

Cantharellus cinnabarinus. Schw. On moss, C.S. H.—M.A.B. Clitocybe candida Bres. On ground. C. S. H.—M. A. B.

Clitocybe gigantea (Quel.) Champ. Sandy soil., C. S. H.— M. A. B.

Clitocybe infundibuliformis. Bull. Ground in woods, C. S. H. —M. A. B.

Clitocybe media. Pk. Vicinity of lakes, C. S. H.—M. A. B. Collybia butyracea (Bull.) Quel. On decayed leaves between 1st and 2nd lakes, C. S. H.—G. C. F.

Coprinus atramentarius. (Bull.) Fr. On barrens. Road to Hicksville, C. S. H.—M. A. B.

Coprinus micaceus (Bull) Fr. Glen Cove, L. I.-Jelliffe.

Cortinarius (Fr.) Sp. On dead and decaying leaves west of 1st and 2nd lakes, C S. H.—G. C. F.

Flammula carbonaria. Fr. Vicinity of lakes. On Moss, C. S. H.-M. A. B.

Flammula flavida (Pers.) Quel. Woods in vicinity of lakes on decayed logs, C. S. H.—M. A. B.

Hygrophorus cantharellus Schw. Fresh water marsh near fish hatchery, C. S. H.—M. A. B.

Hygrophorus conicus (Scop.) Fr. On ground in woods, C. S. H.—M. A. B.

Hygrophorus fuligineus. Frost., C. S. H.-M. A. B.

Hyphaloma Sublateritium (Schaeff.) Quel. Frequent throughout island.—Jelliffe.

Hyponeuris alneus (L.) Earl. On black Cherry bark, C. S. H.-M. A. B.

Inocybe cincinnata. (Fr.) Gillet. On ground beneath pine trees, C. S. H.—M. A. B.

Lactaria lignyotus. Fr. Near research laboratory in sandy soil, C. S. H.—M. A. B.

Lactaria piperatus. (L) Fr. Roads and woods, C. S. H.—M. A. B.

Lactaria vellerea. Fr. On ground in woods, C. S. H.— M. A. B.

Lactaria volemus. Fr. Sandy soil, C. S. H .- N. M. G.

Lepiota naucina. Fr. On ground between 1st and 2nd lakes, C. S. H.—G. C. F.

Leptoglossum sp. Swamp at 3rd lake, C. S. H.—N. M. G. Marasmius foetidus. Sow. On twigs and old tree stumps

near lakes, C. S. H.—M. A. B.

Marasmius nigripes. Schw. On oak leaves at DeForest Estate, C. S. H.—M. A. B.

Marasmius oreades (L) Fr. Frequent throughout island— Jelliffe.

Marasmius sarmentosus Berk. On fallen oak leaves and twigs. Huntington Rd., C. S. H.—A. F. B.

Nyctalus lycoperdoides (Bull) Schroet. On Russula sp. near Laurelton, C. S. H.—M. A. B.

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Omphalia caespitosa Bot. Old tree stumps near DeForest Estate, C. S. H.—M. A .B.

Omphalia campanella Batsch. Mosses, old stumps, woods at left of lakes, C. S. H.—M. A. B.

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Panaeolus campanulatus Linn. On horse dung west of 2nd lake, C. S. H.—G. C. F.

Panaeolus retirugis Fr. On horse dung west of 2nd lake, C. S. H.—G. C. F.

Panus albido-tomentosus. Cke. On twigs, C. S. H.—M. A. B. Panus stypticus. Fr. Old logs Jones' wood, C. S. H.—M.A.B. Panus torulosus. Fr. De Forest Estate, C. S. H.—M. A. B.

Pilosace exima. Pk. Decayed logs. De Forest Estate, C. S. H.—M. A. B.

Psalliota campestris L. Frequent throughout island—Jelliffe. Pleurotus ostreatus (Jacq.) Fr. Frequent throughout island.
—Jelliffe.

Pleurotus sapidus Kalckb. Trees near Fish Hatchery, C. S. H.—A. F. B.

Pleurotus ulmarius (Bull.) Quel. Glen Cove, L. I.—Jelliffe. Russula alutacea Fr. Glen Cove, L. I.—Jelliffe.

Russula crustosa. Pk. Roadside De Forest Estate, C. S. H. M. A. B.

Russula cyanoxantha. Schaeff. Ground, woods near lake, C. S. H.—M. A. B.

Russula emetica Vitt., C. S. H.-M. A. B.

Russula purpurina Q. & S. On ground on road to Eugenics Record Office, C. S. H.—M. L. B.

Russula roseipes (Secr.) Bres. Back of DeForest Estate, C. S. H.—M. A.B.

Russula viresvens (Schaeff.) Fr., C. S. H.-M. A. B.

AURICULARIACEAE.

Calocera cornea (Batch) Fr.; C. S. H.—A. F. B. Dacrymyces chrysocomus. (Bull.) Tul. Rotten branches on ground, C. S. H.—G. C. F.

CALOSTOMATACEAE.

Calostoma cinnabarium Corda. Woods west of lakes, C. S. H. —A. F. B.

CLAVARIACEAE.

Clavaria amethystina, Bull. C. S. H.-M. A. B.

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- Clavaria circinans Pk. Woods near lakes. C. S. H.-M. A. B.
- Clavaria coronata Schw. On birch, woods near 2nd lake, C. S. H.
- Clavaria fusiformis Sow. Between 2nd and 3d lakes, C. S. H.—G. C. F.
- Clyavaria pistillaris. L. Ground, between 1st and 2nd lakes. C. S. H.—G. C. F.
- Clavaria stricta Pers. On ground, C. S. H.-M. A. B.
- Lachnocladium Michineri. B. and C. On wet ground. Center Island.C. S. H.—M. A. B.
- Sparassis tremelloides Berk. Oak Stump on hill near laboratory, C. S. H.—G. C. F.

COLEOSPORIACEAE.

Coleosporium solidaginis (Schw.) Thuem. On Solidago sempervirens, C. S. H.—M. A. B.

CORTICIACEAE.

- Stereum compactum Pers. Road to Huntington, C. S. H.— M. A. B.
- Stereum complicatum Fr. Frequent throughout island. Jelliffe.
- Stereum frustulosum Pers. Frequent throughout island. Jelliffe.
- Stereum hirsutum (Willd.) Pers. Lake region and DeForest Estate, C. S. H.—M. A. B.
- Stereum striatum Fr. On chestnut Bark. Road to Huntington, C. S. H.-M. A. B.
- Stereum versicolor Fr. Frequent throughout Island—Jelliffe. Sterigmatocystis sp. On horse chestnut bur. C. S. H.—M. A. B.

EXOBASIDIACEAE.

- Corticium comedans (Nees) Fr. On cherry birch. C. S. H. -M. A. B.
- Hirneola auricula-Judae. (L) Berk. C. S. H.-M. A. B.

HYDNACEAE.

Hydnum adustum. Schw. Rotten wood. West of first lake. C. S. H.—N. M. G.

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- Hydnum Caput-Ursi Fr. C. S. H. vicinity-N. M. G.
- Hydnum repandum L. C. S. H.-A. F. B.
- Hydnum zonatum. Batsch. Ground vicinity first lake.
- Irpex cinnamomeus Fr. Woods near school house on dead branches. C. S. H.—G. C. F.
- Irpex deformis Fr. Woods near lakes, C. S. H .- M. A. B.
- Irpex fusco violaceus (Schr.) Fr. Near Lakes, on birch bark. C. S. H.—M. A. B.
- Irpex tulipiferae. Schw. Woods back of DeForest Estate on old twigs. C. S. H.—M. A. B.
- Phaeodon imbricatus (L.) Schrot. On ground west of 2nd lake, C. S. H.—G. C. F.

LYCOPERDACEAE.

- Bovistella ohiensis E. and M. Goat Pasture, C. S. H.—G.C.F. Geaster hygrometricus. Pers. Sand beach near Bayville, C. S. H.—M. A. B.
- Lycoperdon cyathiforme Bosc., C. S. H.-M. A. B.
- Lycoperdon gemmatum Batsch. Soil in woods, C. S. H.— M. A. B.
- Lycoperdon piriforme Schaeff. Common.-Jelliffe.

MELAMPSORACEAE.

- Caeoma erigonatum S. On Erigeron sp., C. S. H.—A. F. B. Caeoma nitens (Schw.) New. C. S. H.—A. F. B.
- Calyptospora goeppertiana Kuhn. On Vaccinium corymbosom, forming witches brooms. C. S. H.—A. F. B.

NIDULARIACEAE.

- Crucibulum vulgare Tul. Common on twigs and earth near lakes, C. S. H.—A. F. B.
- Cyathus hirsutus (Schaeff) Duf. Hoffman. On logs, C. S. H.—A. F. B.
- Cyathus sp. (Hall) Roadside, on earth and old horse dung. C. S. H.—A. F. B.

PHALLACEAE.

- Dictyophora duplicata (Bosc) Ed. Fisch. C. S. H.—A. F. B. Dictyophora phalloidea Desv. Frequent, L. I.—Jelliffe.
- Mutinus bovinus Morg. Glen Cove, L. I.-Jelliffe.

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- Mutinus caninus (Huds.) Fr. Frequent on soil near laboraatory.
- Mutinus elegans Mont. Under old leaves chestnut woods, Huntington road. C. S. H.—D. S. J.
- Phallus impudicus L. Infrequent throughout the island. Jelliffe.
- Rhytisma acerninum (Pers.) Fr. Frequent throughout L. I.—Jelliffe.
- Rhytisma Solidaginis (Schw) Fr. Frequent throughout L. I. —Jelliffe.

POLYPORACEAE.

- Boletus alveolatus B. and C. Frequent rich woods. C. S. H. —M. A. B.
- Boletus americanus Pk. Woods south of Syosset Rd. C. S. H.-M. A. B.
- Boletus auripes Pk. Huntington Road. C. S. H.—M. A. B. Boletus auriporus Pk. C. S. H.—M. A. B.
- Boletus bicolor (Pk.) Ground C. S. H.-M. A. B.
- Boletus castaneus (Bull.) Woods. Road to Huntington, C. S. H.-M. A. B.
- Boletus felleus (Bull.) Woods, near lakes. C. S. H.—D. S. J.
 Boletus Frostii. (Russell.) Common in woods, south side
 Syosset Rd., C. S. H.—N. M. G.
- Boletus gracilis (Beck) P. Henn. Woods, south side Syosset Road. C. S. H.—N. M. G.
- Boletus griseus Frost. Ground. West side second lake, C. S. H.—M. A. B.
- Boletus indecisus. (Pk.) Woods west of 2nd lake. C. S. H. —M. A. B.
- Boletus ornatipes Pk. Open woods. Hill to Huntington. 2nd lake, C. S. H.—D. S. J.
- Boletus russelli Frost. Open woods. Huntington Rd. C. S. H.—D. S. J.

- Cyclomyces greene Berk. Soil in woods near lake. C. S. H. D. S. J.
- Daedalea confragosa. (Bolt) Pers. Old stump. Sagamore Hill. C. S. H.—M. A. B.
- Daedalea quercina. (L) Pers. Oak and chestnut stumps. Lakes. Huntington Road, C. S. H.—M. A. B.
- Daedalea unicolor (Bull.) Fr. Frequent throughout the island.—Jelliffe.
- Favolus europaeus Fr. Not infrequent. L. I.-Jelliffe.
- Fistulina hepatica Fr. Frequent on chestnut, C. S. H.—M. A. B.
- Fistulina pallida. B. and R. DeForest Estate. White oak stump, C. S. H.—M. A. B.
- Fomes applanatus (Pers.) Wallr. Common on fallen logs. C. S. H.—M. A. B.
- Lenzites Betulina (L.) Fr. Frequent throughout island. Jelliffe.
- Lenzites bicolor Fr. Glen Cove.-Jelliffe.
- Lenzites sepiaria Fr. On telegraph pole near village, C. S. H. —M. A. B.
- Polyporus betulinus (Bull.) Fr. On Betula populifolia near Huntington Road, C. S. H.—A. F. B.
- Polyporus cinnabarinus. (Jacq.) Fr. Covering a fallen log near sandpit. C. S. H.—M. A. B.
- Polyporus dryophilus (Berk.) (C and de Not.) On rotten wood. C. S. H.—N. M. G.
- Polyporus flavo-virens. B. and Rav. Ground near Oyster Bay, C. S. H.—N. M. G.
- Polyporus lucidus. Fr. On Hempstead plain; Hicksville. Stumps. C. S. H.—M. A. B.
- Polyporus obliquus. Pers. Old log to left of sandspit. C. S. H.—M. A. B.
- Polyporus pubescens (Sch.) Fr. Beech log, C. S. H.—M.A.B. Polyporus robiniophilus Fr. Old locust tree near village. C. S. H.—M. A. B.
- Polyporus sulphureus (Bull.) Fr. Old logs. Stumps, C. S. H.—D. S. J.

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- Polystictus abietinus (Dick) Fr. Old limb. C. S. H.—M.A.B. Polystictus cinnabarinus (Klotz) Fries. On chestnut posts near rectory, C. S. H.—D. S. J.
- Polystictus cinnamoneus Jacq. Mossy ground near Tiffanys. C. S. H.—M. A. B.
- Polystictus connatus Schw. Woods west of lakes. C. S. H. —A. F. B.
- Polystictus hirsutus (Wulf.) Fr. Stumps, C. S. H.—M. A. B. Polystictus pargamenus Fr. Old stumps. C. S. H.—M. A. B. Polystictus perennis (L.) Fr. West of lakes in the woods, C.
 - S. H.—A. F. B.
- Polystictus versicolor, (L.) Fr. Old logs. Road to Eugenics Record Office. C. S. H.—M. A. B.
- Poria sp. Old twigs. C. S. H .- M. A.B .
- Simblum rubescens Gerard.—Jelliffe.
- Simblum sphaerocephalum Schlecht. Near Jones residence. C. S. H.—N. M. G.
- Strobilomyces strobilaceus. Scop ex. Berk. Frequent in woods, C. S. H.—G. C. F. and A. F. B.
- Trametes cinnabarina. Fr. C. S. H .- D. S. J.
- Trametes sepium. B and C. Not uncommon through Island.

 —Jelliffe.

PUCCINIACEAE.

- Aecidium Caladii. Frequent throughout island.—Jelliffe.
- Aecidium fraxini. Schw. On ash trees.
- Gymnosporangium globosum Farl. Aecidial stage on Crataegus sp. Mathesons Estate. C. S. H.—M. A. B.
- Gymnosporangium juniperi-virginiae Schw. On juniper and apple trees. C. S. H.—M. A. B.
- Gymnosporangium macropus Lk. Common on Juniper, C. S. H.—D. S. J.
- Gymnosporangium Sabinae (Dicks) Winter. Frequent throughout island.—Jelliffe.
- Puccinia Compositorum Schw. Glen Cove. L. I.—Jelliffe.
- Puccinia graminis P. Abundant on grass. C. S. H.-A. F. B.
- Fuccinia Hieracii (Schw.) Mart. Glen Cove, L. I.—Jelliffe. Puccinia Xanthii Schw. Frequent throughout island.—Jelliffe.
- Uredo Potentillorum Oc. Common throughout island.—Jelliffe.

Uromyces fragarioldes? On Duchesnia near Laboratory, C. S. H.—M: A B.

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- Uromyces Lespedezae. Schw. Frequent throughout island.— Jelliffe.
- Uromyces polygoni (Pers.) Fckl. On Polygonum aviculare, C. S. H.—A. F. B.
- Uromyces statices B. & C. on Statice limonium at Lloyd's Neck. C. S. H.—A. F. B.

SCLERODERMATACEAE.

Scleroderma vulgare Horn. C. S. H.-M. A. B.

SPHAEROBALACEAE.

Sphaerobolus carpobolus L. (T.) Rotten logs near 1st lake. C. S. H.—D. S. J.

THELEPHORACEAE.

- Craterellus cornucopoides L. ex. Pers. Gregarious on ground. C. S. H.—M. A. B.
- Craterellus sinuosus Fr. var. crispus. On ground in woods at Tiffany's. C. S. H.—M. A. B.
- Hymenochaete rubiginosm (Dicks.) Lev. C. S. H.—D. S. J.
- Michinera Artocreas B. & C. C. S. H .- N. M. G.
- Solenia villosa Hoffm. On decaying branches of Rubus near school house. C. S. H.—M. A. B.

TILLETIACEAE.

Entyloma rhodopolium (Fr.) Quel. DeForest Estate. C.S.H.
—M. A. B.

TREMELLACEAE.

- Exidia glandulosa (Bull.) Fr. Common on dead twigs. C. S. H.—M. A. B.
- Tremella vesicaria. Eng. Bot. On rotten branches nad Ground near school house.—G. C. F.
- Ulocalla foliacea (Pers) Bref. Dead branches. West of 2nd Lake. C. S. H.—G. C. F.

USTILAGINACEAE.

Graphiola Phoenicis (Moug.) Post. On cultivated palms. C. S. H.—M. A. B.

Ustilago zeae (Backm.) Ung. On corn in Matheson's Garden. C. S. H.—M. A. B.

FUNGI IMPERFECTI

DEMATIACEAE.

Alternaria tenuis. Nees. On dung culture. C. S. H.—A. F. B. Sporodesmium sp. Rotten log 1st lake. C. S. H.—N. M. G.

MUCEDINACEAE.

Amblyosporium alboluteum Cost. Woods near school house. C. S. H.—A. F. B.

Botrytis cinerea. Pers. On leaves of Symplocarpus foetidus. C. S. H.—A. F. B.

Cephalothecium roseum Corda. On decaying wood. C. S. H. —A. F. B.

Cercospora symplocarpi Peck. On Symplocarpus foetida. C. S. H.—A. F. B.

Mycogone incarnata. Pers. On decaying Agaricus. C. S. H. A. F. B.

Rhinotrichum (Corda) sp. On cherry bark. C. S. H.—A.F.B. Sepedonium chrysospermum (Bull) Fries. Parasitic on Boletus sp. near fish hatchery. C. S. H.—A. F. B.

Stachybotrys lobulata Corda. On goat dung. Lloyd's Neck. C. S. H.—A. F. B.

SPHAERIOIDACEAE.

Darluca Filum (Biv.) Cast. Not infrequent.-Jelliffe.

Phyllosticta acericola C. and B. On Acer rubrum. DeForest Estate. C. S. H.—M. A. B.

Phyllosticta catalpae. E. and M. Havemeyer's Estate on Catalpa sp. C. S. H.—M. A. B.

Phyllosticta smilacis. E. and E. On Smilax glauca. C. S. H. —M. A. B.

Phyllosticta syringae Westend. On Syringa vulgaris. C. S. H.—M. A. B.

Phyllosticta terminalis. E. and M. On Leucothöe. C. S. H. —M, A.B.

Septoria Kalmicola Fries. Common on Kalmia. C. S. H. — D. S. J.

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STILBACEAE.

Isaria sp. On Cocoon. C. S. H .- A. F. B.

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Fusarium roseum Lk. Not infrequent.-Jelliffe.

Tubercularia vulgaris Tode. Common throughout.-Jelliffe.

LICHENES.*

CLADONIACEAE.

Baeomyces roseus Pers. 3d lake, C. S. H .- N. M. G.

Cladonia coccifera Willd. Fl. Berol. On ground W. of 3d lake. C. S. H.—S. A. G.

Cladonia cristatella Tuck. On ground W. of 3d lake, C. S. H.—S. A. G.

Cladonia fimbriata (L.) Fr. Frequent on Iong Island. — Jelliffe.

Cladonia furcata (Huds.) Fr. Frequent on Long Island. — Jelliffe.

Cladonia gracilis verticillata Fr. W. of 3d lake, C. S. H. — S. A. G.

Cladonia papillaria (Ehrb.) Hoffmann. Port Jefferson, L. I.
—Wood.

Cladonia rangifering Web. On ground W. of 3d lake. C. S. H.—S. A. G.

Cladonia pyxidata (L) Fr. W. of 3d lake. C. S. H.—S. A. G. Cladonia pyxidata epiphylla Hoffm. Hempstead Plain, Hicksville, L. I.—Harper, '12.

Cladonia squamosa Hoffm. On ground W. of 3d lake—S.A.G. Stereocaulon condensatum Hoffm. On ground. C. S. H. — S. A. G.

GRAPHIDACEAE

Buellia pullata Tuck. Port Jefferson, L. I.-Wood.

* Revised according to nomenclature given in "British Lichens," A. L. Smith, British Museum of Natural History.

For other lichens which may eventually be collected at Cold Spring Harbor see Burnham and Lathan, loc cit., "Additions to the Lichen Flora of Long Island" Wood G. C. Bryologist 8. "A Preliminary List of the Lichens found within a radius of 100 miles of N. Y. City," Wood. G. C. Torreya 14.

LECIDEACEAE.

- Lecidea parasema (Ach.) Th. Fr. Frequent on Long Island.

 —Jelliffe.
- Graphina anguina Muell.-Arg. Frequent on Long Island. Jelliffe.
- Graphina anguina var. graciliens. Nyl. C. S. H.-Wood.

PARMELIACEAE.

- Cetraria aurascens Tuckm. On Trees. C. S. H.-Wood.
- Cetraria lacunosa Ach. On Trees. C. S. H.-Wood.
- Evernia furfaracea Mann. Lich. Bohem. C. S. H.-Wood.
- Leconora subfusca (L.) Ach. Research wharf, C. S. H.— D. S. J. and H. H. Y.
- Lobaria pulmonaria (L) Ach. Common throughout island.
 —Jelliffe.
- Parmelia caperata (L) Ach. Common throughout island.— Jelliffe.
- Parmelia perforata (Jaeg.) Ach. C. S. H., on trees.—Wood. Parmelia saxitilis Ach. Meth. Lich. 3d lake, C. S. H.—S.A.G.
- Parmelia saxit'ilis var. sulcata Ngl. C. S. H. on trees. Wood.
- Ramalina calicaris (L.) Fr. Common throughout island.—
 Jelliffe.
- Usnea barbata Web. Common throughout island—Jelliffe.
- Usnea barbata var. florida (Fr.) C. S. H. on trees-Wood.

PHYSCIACEAE.

- Physcia orbicularis. Dalla Torre and Smith. On rocks, C. S. H.—Wood.
- Physcia stellaris. Nyl. Frequent throughout island.—Jelliffe. Pyxine sorediata Fr. On Trees. C. S. H.—N. M. G.
- The loschistes chrysophthalmus. Th. Fr. Gen. Het. Frequent.
 —Jelliffe.

HEPATICAE.†

ANTHOCEROTACEAE.

*Anthoceros Laevis L.

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*Nothothylas orbicularis (Schwein) Sulliv.

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Bazzania trilobata (L) S. F. Gray. Foot of tree, vicinity of 1st lake. C. S. H.

*Calypogeia sphagnicola (Arn and Perss.) Wernst & Loeske.

*Calypogeia Sullivantii Aust.

Calypogeia Trichomanis (L) Corda. On ground at head 1st lake. D. S. J.

Cephalozia curvifolia (Dicks) Lindb. On rotten wood near 1st lake.—D. S. J.

*Cephalozia fluitans (Nees) Spruce.

*Cephalozia Francisci (Hook) Dumort.

*Cephalozia macrostachya Kaal.

*Cephalozia media Lindb.

*Lepidozia setacea (Web.) Mitt.

*Oddontoschisma prostratum (Sw.) Trevis.

*Odontoschisma Sphagni (Dicks) Dumort.

LEJEUNACEAE.

*Frullania Asagrayana Mont.

Frullania eboracensis Gottsche. Not infrequent on trees. Long Island.—Jelliffe.

†Nomenclature that of the "Second Revised List of New England Hepaticae;" A. W. Evans, (Rhodora 25). I am indebted to Dr. Evans for aid in revising this portion of the manuscript.

*Indicates species listed by Burnham and Latham from the vicinity of Southold and Gardiners Island (Torreya 14). These species may be expected to occur further along the north coast in the vicinity of Cold Spring Harbor.

LOPHOZIACEAE.

Chiloscyphus polyanthos (L) Corda. Near 1st and 2nd lakes. C. S. H.—D. S. J.

Chiloscyphus rivularis (Schrad.) Loeske. Near 1st and 2nd lakes. C. S. H.—D. S. J.

Lophocolea heterophylla (Schrad.) Dumort.

*Lophocolea minor. Nees.

MARCHANTIACEAE.

Conocephalum conicum (L) Du Mort. Common throughout the island.—Jelliffe.

Marchantia polymorpha L. Fish Hatchery Ponds. C. S. H. -N. M. G.

PELLIACEAE.

- *Fossombronia foveolata Lindb.
- *Pellia epiphylla (L.) Carda.
- *Pellia Fabroniana Raddi.

PORELLACEAE.

- *Porella pinnata L.
- *Porella platyphylla (L) Lindb.
- Porella platyphylloidea (Schwein) Lindb. Frequent throughout island.—Jelliffe.

PTILIDACEAE.

*Ptilidium pulcherrimum (Web.) Hampe.

RADULACEAE.

*Radula complanata (L) Dumort.

REBOULIACEAE.

*Asterella tenella (L) Beauv.

RICCARDIACEAE.

- Pallavicinia Lyelli (Hook) S. F. Gray. Fern Belt. Salt Marsh vicinity 1st lake. C. S. H.—D. S. J.
- Riccardia multifida (L) S. F. Gray. C. S. H.-D. S. J.
- *Riccardia pinguis (L) S. F. Gray. C. S. H.—D. S. J.
- Riccardia sinuata (Dicks) Lindb. C. S. H.-D. S. J.

RICCIACEAE.

- *Riccia fluitans L.
- *Riccia Sullivantii Aust.
- Ricciocarpus natans (L) Corda. Between 1st and 3d lakes. C. S. H.—D. S. J.

MUSCI.*

BARTRAMIACEAE.

Bartramia pomiformus (L) Hedw. C. S. H.—Grout. Philonotis fontana (L.) Brid. Huntington, L. I.—Jelliffe.

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^{*} Nomenclature that of the "Mosses of western Pennsylvania, O. E. Jennings. Published by the author, Pittsburgh, Pa. Dr. Jennings has kindly checked this list with records of his own from Cold Spring Harbor vicinity.

BRACHYTHECIACEAE.

Brachythecium acuminatum (Hedw.) Kindb. C. S. H. vicinity.—N. M. C.

Brachythecium flagellare (Edw.) Jennings. Bryol. Europ. Frequent.—O. E. J.

Brachythecium rivulare (Bruch) Centreport, L. I.—Jelliffe. Cirriphyllum Boscii (Schw.) Grout. Frequent L. I.—O. E. J. Eurynchium pulchellum (Hedw.) Jennings. Northport. L. I.—Jelliffe.

Oxrhynchium hians (Hedw.) Jennings. Northport. L. I. — Jelliffe.

Rhynchostegium serrulatum (Hedw.) Jaeger. Frequent, L. I.
—Jelliffe.

BRYACEAE.

Bryum argenteum (L) Hedw. Common throughout.—O. E. J. Bryum caespiticium (L) Hedw. Northport, L. I.—Jelliffe. Leptobryum pyriforme (L) Schimp. Lloyd's Neck, L. I.—Jelliffe.

BUXBAUMIACEAE.

Diphyscium foliosum (Web.) Mohr. Centreport, L.I.—Jelliffe. CLIMACEAE.

Climacium americanum Brid. Not infrequent, L. I.—Jelliffe.
DICRANACEAE.

Ceratodon purpurascens (Hedw.) Brid. Not infrequent, L. I.—Jelliffe.

Dicranella heteromalla (L) Schimp. Common throughout.

—O. E. J.

Dicranella varia (Hedw.) Schimp. Northport.—Jelliffe.

Dicranum flagellare Hedw. Not infrequent throughout. —
Jelliffe.

Dicranum longifolium (Ehr.) Hedw. C. S. H.—N. M. G. Dicranum montanum Hedw. Northport, L. I.—Jelliffe.

Dicranum scoparium (L) Hedw. Frequent on L. I.—Jelliffe. Dicranum spurium, Hdw. Huntington, L. I.—Jelliffe.

Ditrichum pallidum (Schreb.) Hamp. Not infrequent, L. I.
—Jelliffe.

Ditrichum tortile (Schrad.) Linds. Huntington, L. I. Jelliffe.

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Pleuridium alternifolium (Dicks) Rab. Glen Cove, L. I.—Jelliffe.

ENTODONTACEAE.

Entodon cladorrhizans (Hedw.) G. Mueller. C. S. H.—N.M.G. Platygerium repens (Brid.) Bryol Europ. Northport, Jelliffe. Pylaisia schimperi R. and C. On apple trees, C. S. H. — Grout.

FONTINALACEAE.

Dichelyma capillaceum (Dill.) Bryol. Europ. Northport, L. I. Fontinalis antipyretica L. 1st and 2nd lakes. C. S. H.—O.E.J. Fontinalis antipypretica var. gigantea Sull. 1st and 2nd lakes. C. S. H.—J. A. H.

FUNARIACEAE.

Funaria hygrometrica (L.) Sibth. Not infrequent L. I.— Jelliffe.

Physcometrium Pyriforme L. Glen Cove, L. I.—Jelliffe.

ORTHOTRICHACEAE.

Drunmondia clavellata Hook. Lloyd's Neck, L. I.—Jelliffe. Orthotrichum Braunii Bry. Eur. Centreport, L. I.—Jelliffe.

POLYTRYCHACEAE.

Catharinea angustata Brid. Frequent, L. I.-Jelliffe.

Catharinea undulata (L.) Web. and Mohr. Frequent L. I.—
Jelliffe.

Pogonatum pennsylvanicum (Hedw.) Paris. Frequent L. I. —O. E. J.

Polytrichum commune L. C. S. H. vicinity.—N. M. G. Polytrichum Juniperinum Willd. C. S H? vicinity.—O. E. J.

Polytrichum Ohioense R. and C. C. S. H. vicinity.-G. H. H.

SPHAGNACEAE.

Sphagnum capillifolium (Ehr.) Russ, and Warn. Not infrequent, L. I.—Jelliffe.

Sphagnum latifolium Hedw. Not infrequent, L. I.—Jelliffe. Sphagnum molle Sull. Northport, L. I.—Jelliffe.

TORTULACEAE.

Weisia viridula (L) Hedw. Common throughout.-O. E. J.

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HEDWIGIACEAE.

Hedwigia ciliata Ehrb. Bryol.-Europ. Northport.—Jelliffe.
HYPNACEAE.

- Amblystegium adnatum (Hedw.) Br. and Sch. Northport.— Jelliffe.
- Amblystegium riparium (L) Br. and Sch. Frequent, L. I.—Jelliffe. .
- Campylium hispidulum (Brid) Martin. Centreport, L. I.— Jelliffe.
- Hylocomium splendens (Hedw.) Bryol. Europ. Northport.— Jelliffe.
- Isopterygium turfaceum (Lind.) Northport. L. I.—Jelliffe.
 Plagiotkedium sylvaticum (Huds) Bryol. Eur. Centreport, L.
 I.—Jelliffe.
- Stereodon cupressiforme (L) Brid. Not infrequent, L. I. Jelliffe.
- Steredon haldanianus (Grev.) Lindb. Frequent, L. I.—Jelliffe. Stereodon imponens (Hedw.) Brid. Frequent, L. I.—Jelliffe.

LESKEACEAE.

- Elodium Paludosum (Sull.) Loeske. Centreport, L. I.—Jelliffe Haplocladium virginianum (Bridel.) Brotherus. Lloyd's Neck, L. I.—Jelliffe.
- Thelia asprella (Schimp) Sull. On tree, C. S. H.—D. S. J. Thelia hirtella (Hedw.) Sull. Frequent throughout, L. I.—Jelliffe.
- Thuidium delicatulum (L) Mitt. Frequent on L. I.—O. E. J. LEUCOBRYACEAE.
- Leucobryum glaucum (L) Schimp. Not infrequent Long Island.—Jelliffe.

MNIACEAE.

Mnium affine Bland. Common throughout L. I.—O. E. J.
Mnium cuspidatum (L.) Leys. 1st and 2nd lake regious.
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BOOK REVIEWS

In this section are reviews of new, or particularly important and interesting books in the fields of natural science. Books dealing with botany or kindred subjects should be sent to the Editor, the University of Notre Dame. All other books for review should be sent to Carroll Lane Fenton, at the Walker Museum, the University of Chicago, Ill. Publishers are requested to furnish prices with books.

HOUSE, HOMER D., ANNOTATED LIST OF THE FERNS AND FLOWERING PLANTS OF NEW YORK STATE.

While opinions as to the status of genera and species may vary with different individuals, every one can not be delighted, whatever his views, when even rejected genera are classified in such a way in a work that all may easily be seen how things are correlated. The author is rather conservative in his views, yet the most radical "genus splitter" can not but admire the wealth of references that point to a most thorough treatment of the subject. Seldom, too, does one see in a botanical work this admirable lack of bias and personal prejudices of an author. With views decisively his own, the writer of the flora includes references and a wealth of information that the ordinary other hide-bound views of books of a decade or two past have failed to give, or purposely sought to belittle or conceal with a prejudicial attitude of mind which is unscientific.

The Flora of the State of New York is a work that will be consulted and studied long after our time, because it is thoroughly scientific. The State of New York, notable as having published many valuable botanical works heretofore, is to be congratulated on another scholarly, and erudite work; and the men of sicence of this country have been led to expect the best from the empire state and seldom, if ever, have been disappointed. No botanist of this country can afford to be without this valuable publication.—J. A. N.

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